



Air Pilot

DEC 2017 ISSUE 24





AIR PILOT

THE HONOURABLE
COMPANY OF
AIR PILOTS
incorporating
Air Navigators

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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

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Except where specifically stated, none of the material in this issue is to be taken as expressing the opinion of the Court of the Company.

EDITORIAL CONTRIBUTIONS:

The copy deadline for the February 2018 edition of Air Pilot is 1 January 2018. The Cobham House office will close on December 15th.

We will move into our new offices on January 2nd 2018. The address is: 14-16 Dowgate Hill House, London EC4R 2SU. Our telephone number remains unchanged

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Diary

DECEMBER 2017

7th	General Purposes & Finance Committee	Cobham House
14th	Carol Service	St. Michaels, Cornhill

JANUARY 2018

10th	AST/APT meeting	Dowgate Hill House
16th	Air Pilots Benevolent Fund AGM	RAF Club
18th	General Purposes & Finance Committee	Dowgate Hill House
18th	Court & Election Dinner	Cutlers' Hall

FEBRUARY 2018

7th	Pilot Aptitude Testing	RAF Cranwell
8th	General Purposes & Finance Committee	Dowgate Hill House
20th	Luncheon Club	RAF Club

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: Air Chief Marshal Sir Patrick Hine GCB GBE receives the Award of Honour from Air Marshal Stu Atha and the Master, Capt. Chris Spurrier.

A message from your Editor..

(Although it can sometimes be a drawback), one of the key advantages of the internet age is the faster dissemination of information. There can be few areas where this is of greater benefit to mankind than in the publication of flight safety material. Many of us will remember long days in a crew room, weathered in perhaps, passing the hours studying the RAF's flight safety magazine, Air Clues. In those days it had a Restricted circulation category. To the RAF's credit, this is now available to all on the web (see <https://www.raf.mod.uk/organisation/airclues.cfm>.) As is usual, the latest issue carries features that should be of interest to all practitioners of aviation.



This issue of Air Pilot carries a short report on our recent visit to the AAIB at Farnborough. This organisation is also a firm believer in rapid and broad publication of flight safety information. Its October monthly bulletin was a classic, if that is the appropriate word, in containing lessons for pilots of every hue. For the warbird fraternity it featured the investigation into the fatal crash of a P51 (that used to grace the skies over my home), with torque roll / low speed handling, and flying clothing issues. The CFIT (or loss of control in IMC) of a PA30 has universal interest. And finally it included the findings of the very close call at Belfast by a Canadian B737 in July this year which highlights the dangers of incorrect entries into the Flight Management Computer.

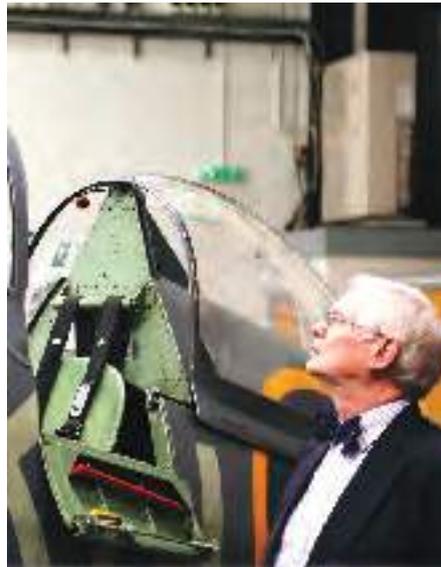
As days shorten, and weather issues may prevent flight by us 'discretionary' flyers, it behoves us to spend some time absorbing the lessons learned sometimes so painfully by others, and published in timely manner by the RAF and AAIB.

On a lighter note, it was again a pleasure to see a full Great Hall at London's Guildhall where members and guests could pay tribute to some of the finest airmanship in the world.

Paul Smiddy - Editor

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News Round Up

RAF BENSON HONOURED

One of our affiliated units, RAF Benson was recently presented with the Stainforth Trophy by ACM Sir Stephen Hillier, CAS. The trophy is awarded annually to the station deemed to have contributed the most to the delivery of air power within the Royal Air Force. Congratulations!



MH370

The Australian safety agency, the ATSB, recently released an interesting summary of its investigation.

“On 8 March 2014, a Boeing 777 aircraft operated as Malaysia Airlines flight 370 (MH370) was lost during a flight from Kuala Lumpur in Malaysia to Beijing in the People’s Republic of China carrying 12 crew and 227 passengers. The search for the missing aircraft commenced on 8 March 2014 and continued for 1,046 days until 17 January 2017 when it was suspended in accordance with a decision made by a tripartite of Governments, being Malaysia, Australia and the People’s Republic of China.

The initial surface search and the subsequent underwater search for the missing aircraft have been the largest searches of their type in aviation history. The 52 days of the surface search involving aircraft and surface vessels covered an area of several million square kilometres. A sub surface search for the aircraft’s underwater locator beacons was also conducted during the surface search. The underwater search started with a bathymetry survey which continued as required throughout the underwater search and has mapped a total of 710,000 square kilometres of Indian Ocean seafloor, the largest ever single

hydrographic survey. The high resolution sonar search covered an area in excess of 120,000 square kilometres, also the largest ever search or survey of its kind. Despite the extraordinary efforts of hundreds of people involved in the search from around the world, the aircraft has not been located.

Regardless of the cause of the loss of MH370, there were no transmissions received from the aircraft after the first 38 minutes of the flight. Systems designed to automatically transmit the aircraft’s position including the transponder and the aircraft communications addressing and reporting system failed to transmit the aircraft’s position after this time period. Subsequent analysis of radar and satellite communication data revealed the aircraft had actually continued to fly for a further seven hours. Its last position was positively fixed at the northern tip of Sumatra by the surveillance systems operating that night, six hours before it ended the flight in the southern Indian Ocean.

The challenge which faced those tasked with the search was to trace the whereabouts of the aircraft using only the very limited data that was available. This data consisted of aircraft performance information and satellite communication metadata initially, and then later during the underwater search, long-term drift studies to trace the origin of MH370 debris which had been adrift for more than a year, and in some cases, more than two years. The types of data, and the scientific methods used for its analysis, were never intended to be used to track an aircraft or pin point its final location.

On 28 April 2014, the surface search for MH370 coordinated by the Australian Maritime Safety Authority (AMSA) was concluded and the Australian Transport Safety Bureau (ATSB) assumed responsibility for conducting the underwater search for the aircraft. The underwater search area was initially

defined at 60,000 square kilometres, and was increased in April 2015 when the Tripartite Governments (Malaysia, Australia and the People’s Republic of China) agreed to expand the search area to 120,000 square kilometres. The primary objective of the underwater search was to establish whether or not the debris field of the missing aircraft was in the area of seafloor defined by expert analysis of the aircraft’s flight path and other information. If a debris field was located, the search needed to confirm the debris was MH370 by optical imaging, and then map the debris field to enable planning for a subsequent recovery operation.

Once underwater search operations commenced in October 2014, the MH370 debris field could potentially have been located at any time. A recovery operation would need to have commenced as soon as possible after the debris field was located and the Tripartite governments had agreed on the next steps. The ATSB’s role was therefore to also put in place the arrangements and plans necessary for a rapid recovery operation to occur at short notice.

The underwater search applied scientific principles to defining the most probable area to be searched through modelling the aircraft’s flight path and behaviour at the end of the flight. The flight path modelling was based on unique and sophisticated analysis of the metadata associated with the periodic automated satellite communications to and from the aircraft in the final six hours of the flight. The end-of-flight behaviour of the aircraft, when MH370 was considered to have exhausted its fuel, has been analysed and simulated.

In 2015 and 2016, debris from MH370 was found on the shores of Indian Ocean islands and the east African coastline. The debris yielded significant new insights into how and where the aircraft ended its flight. It was established from the debris that the aircraft was not configured for a

ditching at the end-of-flight. By studying the drift of the debris and combining these results with the analysis of the satellite communication data and the results of the surface and underwater searches, a specific area of the Indian Ocean was identified which was more likely to be where the aircraft ended the flight.

The understanding of where MH370 may be located is better now than it has ever been. The underwater search has eliminated most of the high probability areas yielded by reconstructing the aircraft's flight path and the debris drift studies conducted in the past 12 months have identified the most likely area with increasing precision. Re-analysis of satellite imagery taken on 23 March 2014 in an area close to the 7th arc has identified a range of objects which may be MH370 debris. This analysis complements the findings of the First Principles Review and identifies an area of less than 25,000 square kilometres which has the highest likelihood of containing MH370.

The ATSB's role coordinating the underwater search involved the procurement and management of a range of sophisticated and highly technical services. Management of the underwater search was aimed at ensuring high confidence in the acquisition and analysis of the sonar search data so that areas of the seafloor which had been searched could be eliminated. A comprehensive program was implemented to ensure the quality of the sonar coverage. A thorough sonar data review process was used to ensure areas of potential interest were identified and investigated.

During the early stages of the procurement, careful consideration was given to the methods available for conducting a large scale search of the seafloor. Water depths were known to be up to 6,000 m with unknown currents and unknown seafloor topography. Search operations would also have to be conducted in poor weather conditions and in a very remote area far from any land mass. Planning focused on selecting a safe, efficient and effective method to search the seafloor in an operation with an indeterminate timeframe.

The mapping of the seafloor in the search area revealed a challenging terrain for the underwater search which used underwater vehicles operating close to the seafloor. While the deep tow vehicles selected as the primary search method proved to be very effective, the seafloor terrain necessitated the use of a range of search methods including an autonomous underwater vehicle to complete the sonar coverage.

The underwater search area was located up to 2,800 km west of the coast of Western Australia and the prevailing weather conditions in this area for much of the year are challenging. Crews on the search vessels were working for months at a time in conditions which elevated the operational risks. The ATSB ensured that these risks to the safety of the search vessels and their crews were carefully managed.

At the time the underwater search was suspended in January 2017, more than 120,000 square kilometres of seafloor had been searched and eliminated with a high degree of confidence. In all, 661 areas of interest were identified in the sonar imagery of the seafloor. Of these areas, 82 with the most promise were investigated and eliminated as being related to MH370. Four shipwrecks were identified in the area searched.

The intention of this report is to document the search for MH370, in particular, the underwater search including; where the search was conducted (and why), how the search was conducted, the results of the search and the current analysis which defines an area where any future underwater search should be conducted. The report also includes a safety analysis which is focused on the search rather than on discussing the range of factors which may have led to the loss of the aircraft.

The Government of Malaysia is continuing work on their investigation of the facts and circumstances surrounding the loss of MH370 aircraft consistent with their obligations as a member State of ICAO. The Malaysian investigation is being conducted in accordance with the provisions of ICAO Annex 13, Aircraft Accident and Incident Investigation.

The search, recovery and investigation of

the loss of Air France flight AF447, in the South Atlantic Ocean in 2009, and the loss of MH370 have led to some important learnings related to locating missing aircraft on flights over deep ocean areas. Requirements and systems for tracking aircraft have been enhanced and will continue to be enhanced. Steps are being taken to advance other aircraft systems including emergency locator transponders and flight recorder locator beacons.

The ATSB acknowledges the extraordinary efforts of the hundreds of dedicated professionals from many organisations in Australia and around the world who have contributed their time and efforts unsparingly in the search for MH370.

The reasons for the loss of MH370 cannot be established with certainty until the aircraft is found. It is almost inconceivable and certainly societally unacceptable in the modern aviation era with 10 million passengers boarding commercial aircraft every day, for a large commercial aircraft to be missing and for the world not to know with certainty what became of the aircraft and those on board.

The ATSB expresses our deepest sympathies to the families of the passengers and crew on board MH370. We share your profound and prolonged grief, and deeply regret that we have not been able to locate the aircraft, nor those 239 souls on board that remain missing.”

LONDON HEMS

Trustees for the APBF recently attended the annual reception for the London Air Ambulance, which was held at the Honourable Artillery Company.



THE ERIC WINKLE BROWN STATUE AND FLYING SCHOLARSHIPS

Upper Freeman Iain Tulloch writes:

When Capt. Eric Winkle Brown died early last year it was suddenly realised that we had lost a very special aviator. There had been some recent acknowledgement of his achievements such as an honorary doctorate from Edinburgh University, and an interview on the 3000th edition of Desert Island Discs with Kirsty Young. It was that interview which sparked the interest of some of the alumni of Edinburgh University Air Squadron. We realised that Winkle was our oldest surviving member. A lunch was arranged near his home in Cophthorne by some Squadron members who lived in the area. By all accounts it was a most enjoyable affair. He appeared aged 96 driving a sports car with his partner!.

Winkle never had the reputation of being a shrinking violet amongst those who worked with him. Dedicated as he was to test flying, his qualities as a staff officer were never other than secondary considerations. He retired with the rank of Captain after over 30 years' service, and an unparalleled record of types flown, carrier landings, and test flights, not to mention active war service. Reading between the lines it is probably the case that he could be a thorn in the flesh of authority. That is often the case with unusually talented people. But Winkle was active and involved for well over 40 years after retiring from the navy. At 95 years old he was still capable of giving the annual Mountbatten defence lecture at his old university. As Chairman of the British Helicopter Advisory board in the 70s he was influential in recommending safe practices for the burgeoning helicopter operations in the North Sea. His active support for the preservation of historic naval aircraft was much appreciated. Those who had the privilege of meeting him in his later years invariably describe a fascinating raconteur with a charming and at times self-deprecating sense of humour. In itself that would be no bad epitaph.

But despite the superb flying display in his honour at Yeovilton there seemed to be something missing. In a world where knighthoods recognise the achievements

of civil servants, entertainers and sporting icons, it seems strange that an aviator of Winkle's stature had to make do with a CBE. Not many of today's knights and dames have faced the risks that Winkle did in the interests of aeronautical research. So a group of old boys from Edinburgh University Air Squadron decided to do something about it. We were unlikely to achieve the heights of Nelson's Column, but the idea of a statue to this great naval aviator was born. Where else to put it but at Edinburgh airport which saw the start of his military flying in the Edinburgh University Air Unit in 1939. The fact that this was an RAF unit and his later fame was as a naval pilot is irrelevant. What really matters is that he was born in Leith and that like us he was an alumnus of the University and the Air Unit. So who are these old boys and what have they done? Edinburgh UAS was disbanded nearly 50 years ago to be amalgamated with other Scottish UASs. Hence the title of "Old Boys". There were no flying RAF girls in those days, much to our disappointment. Of the trustees for the Eric Brown memorial appeal only three have been professional aviators. All of us are ex-RAF but my colleagues had much more distinguished military careers. My only distinction was to be one of two "Fg Off (RAF ret'd)" on the Air Force List for some years. Having just read the wonderfully amusing RAF memoir of Anthony Haig-Thomas (Fg Off RAF ret'd), Fall Out Roman Catholics and Jews, I realise that we were probably on the same page! However it is fair to say that our engine room has been ably manned by GPs, civil servants, and businessmen.

What everyone has in common is an abiding love of flying whether or not they have kept it up. Many have written about their fond memories of being introduced to RAF flying training standards as young UAS students. One of our leading lights lives in the far north west of Scotland from where he created the association of Edinburgh UAS alumni for purely social reasons. When Winkle replied to his invitation to lunch with local EUAS members a couple of days after the Desert Island Discs

programme the die was cast. All those lucky enough to attend were fascinated and charmed by this remarkable airman. Unfortunately they were unable to repeat the invitation.

At the outset of the project for a statue in Winkle's honour only one or two of our members had any experience of managing a charity, let alone creating one. Luckily we benefitted from the enthusiastic support of the management of Edinburgh Airport Ltd. at the outset. They understood the historical significance and the strong links with the Edinburgh community that made the idea so attractive and the site so obvious. But, however good the idea, the business of raising the money to finance it is the real challenge. The concept has to be well defined, a sculptor with the capacity to capture the essential qualities of the subject has to be selected, and the business of founding a charity needs to be started. The latter task took far longer than anticipated, but the trustees were determined to put everything in place before making a public appeal for funds. Fortunately we benefitted from some generous pledges before all the boxes were ticked, for which we remain extremely grateful. All of the funds required for the statue were collected within three months of launching our appeal.

As with all projects there were a number of concerns expressed in the preliminary meetings. Would the trustees be liable if the project failed? Was the budget realistic? Had we missed the boat because of delays in founding the charity? Was this really a charitable enterprise anyway? This last question prompted a new dimension to the appeal. All of us had benefitted from free RAF training in our youth and without exception the trustees acknowledge how much that experience has helped them in their various careers. Severe cuts in the RAF defence budget mean that today's youngsters have only a fraction of such opportunities. Worse still, the search for employment, however good one's qualifications, is far more daunting for these young people than it was for us. The building of self-confidence and self-reliance is a fundamental aspect of preparing for

employment and also for preparing to fly solo. So the idea of funding a flying scholarship/experience scheme in Winkle's name took hold. Another aspect considered was the provision of flying experience for disabled youngsters. The sheer pleasure they get from this is really uplifting for the provider as well as the recipient. We decided that once the statue had been paid for we would go all out to collect for the flying scholarship/experience scheme. Having reached the first objective we are now intent on accomplishing the second.

What is difficult to determine at this stage is how much we can collect. Another question is how long we can continue collecting, being "old boys". The statue is likely to be unveiled in March or April next year by our Grand Master, and we shall certainly continue collecting until then. We have identified a range of possible awards from disabled experience flights, to sponsorship to first solo, to sponsorship to PPL. The eventual mix will be determined by the funds available. We are in no position to administer either the selection or the training of those chosen, but we have identified some suitable service providers. Our Learned Clerk has been kept in the loop and has been most helpful. So, if the Winkle Brown Flying Scholarship scheme is going to fly, then perhaps the Honourable Company is a good place for us to look for ideas as well as contributions. Both will be very welcome, especially looking to the future when the "old boys" finally hang up their collecting boxes. It would be good to know that having achieved the first objective, fresh troops would be prepared to move on to the second.

Finally I cannot imagine anyone wanting to demolish Winkle's statue for any reason, political or otherwise. It will be designed to be moved if necessary should EAL need to change its present site. Otherwise it will remain as a permanent tribute to one of the world's greatest test pilots in the city of his birth.

Have a look at our website www.edinburghuas.com/winkle-memorial and, if you can, put something in the kitty for the Winkle flying scholarship scheme. We are all volunteers trying to put something back.

THE ALL-PARTY PARLIAMENTARY GROUP ON GENERAL AVIATION

There has been a brief update on the activities of the APPG. It now consists of more than 70 Parliamentary members from across all the major parties and both Houses of Parliament. This includes 7 ex-Cabinet ministers and 11 Privy Councillors. The full list can be seen at www.generalaviationappg.uk/parliamentary-members/.

Working Groups are being established in the following areas:

- 1) Airfields and Planning related to Airfields and in close proximity to Airfield
- 2) Airspace and maintaining access for General Aviation
- 2) Taxation including fairness with VAT on Training etc.

It is currently writing to parties it wishes to invite into the Working Groups, in order to show a balanced viewpoint from across the industry. It recently visited Wycombe Air Park (see <http://www.generalaviationappg.uk/appg-visits-wycombe-air-park/>).

2017 REMEMBRANCE



The Remembrance service at Yeovilton was graced by a flypast of the Royal Navy Historic Flight's Swordfish W5856 flanked by a Wildcat.

MALTA AVIATION MUSEUM

Liveryman Phil Shaw writes:

I started working with the Malta Aviation Museum soon after I arrived here a year ago. They are a dynamic group of volunteers, with a remarkable collection of aeroplanes, most of which have a direct Maltese connection. Their Chief Engineer, David Polidano, has restored this magnificent Tiger Moth to airworthy condition a few years ago and

I flew it from the museum at Ta'Qali to Luqa in July. There is about 300m of the old runway at Ta'Qali that the museum has cleared and with the support of the local authorities, an over-night move from the museum to the runway, followed by an early take-off (before it got too hot...) was completed with the minimum of fuss and disruption. It has been my pleasure to carry out David's Type conversion and Tail Wheel Differences training at Luqa this summer - no easy feat at a busy international airport. However, a combination of dawn sorties - when traffic is minimal - and the very positive cooperation from Luqa's ATC, has enabled us to successfully complete and consolidate his training. Dawn over Valletta in a Tiger Moth is something I shall never forget.



Photos by Aiden Paul

LAST FLIGHTS

Capt Chris Nicholls , Liveryman and Master Air Pilot, died in the ill-fated Tiger Moth pleasure flight from Compton Abbas, along with his 67-year-old passenger, on 26th August. This photograph of Chris in the engine of a Cathay Pacific Airways A340 was taken just before his retirement on his 55th birthday in 2007. A Thanksgiving Service for his life was held on 13th October at Farnham, near Blandford Forum in Dorset.



Fred Marsh, who was awarded our Sword of Honour in the 2015-6 year, died recently at the ripe age of 92. He was Vice-President and stalwart of the Royal Aero Club. Fred began Air Racing in 1964 and was a founder and Chairman of the Formula Air Racing Association and was British Air Racing Champion for 1972 and twice Winner of the Duke of Edinburgh Formula One Trophy. Fred had also served as the UK Vice President to the Fédération Aéronautique Internationale and was founder and first President of Europe Air Sports in 1988 which Fred instigated due to concern about the potentially damaging impact of pan European aviation regulations on air sport activities. Europe Air Sports now represents some 680,000 aviators and continues to actively fulfil Fred's original remit.

Fred also founded the Royal Aero Club Trust (where he served as Vice President and was a former Chairman) which looks after the RAeC Memorabilia and Archives.

VISIT TO AAIB 17TH OCT 2017

by Past Master Chris Ford

On the afternoon of 17th October a party of the Company lead by the Master attended a visit to The AAIB at Farnborough. This visit had been delayed for operational reasons from earlier in the year, and we were delighted to be invited back. The 18 members were met and thoroughly briefed by the Chief Inspector of Accidents (and Upper Freeman) Crispin Orr. Thereafter we were taken on a tour of the Flight Data Recorder labs and thence to the hangers to see the evidence of current investigations. This was a salutary lesson in just how dangerous flying can really

be! Our guides through this phase were Mr. Richard Ross, an Engineering Inspector and Upper Freeman Captain Emma Truswell, an Ops Inspector. The first part of the original visit was fully covered in a previous edition of Air Pilot, but we would like to express our gratitude to the Chief Inspector and his staff for their time and enthusiasm. The impartiality with which they conduct investigations and produce subsequent reports was apparent throughout the time we were there. We hope that the Branch continues to thrive, though we had rather they had fewer investigations to carry out.



Our affiliated unit, the University of London Air Squadron setting off for round two of the Lord Mayor's Show.



The Master in procession at the Guildhall after the election of the year's new Lord Mayor.

New 617 Sqn Dutch Memorial

Past Master Arthur Thorning notes: the Dutch family who care for the graves of Squadron Leader Melvin Young and his crew (Lancaster AJ-A) are planning a memorial near where the aircraft was shot down as it returned from the Dams raid. I understand that they have raised more than half the funds needed but will be pleased to receive further donations. The intention is to unveil the memorial in the second half of May 2018, 75 years on. My wife and I intend to be there.

The 617 Squadron Netherlands Aircrew Memorial Foundation has been established earlier this year to commemorate all the members of 617 Squadron RAF who have lost their lives since its formation in March 1943. This foundation has been established by Jan van Dalen and his daughter Macy Plugge, both Dutch citizens.

Jan has always been interested in WWII and he and his wife took their children to places of interest related to WWII. In 1992 they went for the first time to England visiting museums and old airfields. This became a regular part of their holidays. It was of course inevitable that his two children were also 'infected' by their father's enthusiasm. In particular his daughter (Macy) developed an interest in RAF history at a very young age.

Throughout the years Jan collected many books and memorabilia, and when books disappeared from his bookshelf, he knew that his daughter had borrowed them 'temporarily'.

During this time they both started to develop a special interest in Operation Chastise (the Dams Raid), and the crew members of aircraft AJ-A who are buried near their home. Thus 617 Squadron and their exploits became increasingly important in their lives. Macy's wish to visit RAF Scampton came true in 2001: they visited the airfield and the Petwood Hotel, and also attended the memorial services in Woodhall Spa for the first time. On this occasion they met many

crew members and thereafter it became an annual trip.

On May 17th 1943 the Lancaster AJ-A, flown by S/L Melvin 'Dinghy' Young, DFC & Bar, was on its return flight from Op Chastise (the Dams raid), and was hit by flak near Wijk aan Zee. The Lancaster crashed south of Castricum aan Zee, with all seven crew members losing their lives, now buried at Bergen General Cemetery. Jan and Macy both live nearby, and have lovingly tended the graves for many years.

The involvement of the crew of AJ-A on

the raid is told in detail in Chapter 9 of Arthur Thorning's book *'The Dambuster Who Cracked the Dam – the Story of Melvin 'Dinghy' Young'* (Pen & Sword, 2008)

In May 2018 it will be seventy-five years since the Dams Raid and the goal is to unveil a memorial plaque at Castricum aan Zee as a permanent homage to the seven crew members.

Donations to support this worthy cause can be made via the website operated by Jan van Dalen and Macy Plugge - www.617sqn-naml.nl.

THE 617 SQUADRON NETHERLANDS AIRCREW MEMORIAL FOUNDATION

*At the setting of the sun and at the morning
We will remember them*

On the night of 16/17 May 1943, nineteen Lancaster bombers of 617 Squadron attacked the great dams of the Ruhr, Germany's industrial heartland. Returning from the raid Lancaster AJ-A, flown by Squadron Leader Melvin 'Dinghy' Young, met strong enemy resistance and was hit by flak near the town of Wijk aan Zee. The Lancaster crashed south of Castricum aan Zee in the Netherlands and all seven crew members were killed. They are buried at Bergen General Cemetery.

May 2018 marks the 75th anniversary of the 'Dambusters' raid and it is our goal to unveil a memorial plaque at Castricum aan Zee as a tribute to the seven crew members of Lancaster AJ-A.

To achieve this we need your help and support by making a donation to the Memorial Foundation. To find out more about how you can make a donation, please visit our website: www.617sqn-naml.nl/Contact-ENG

The objective of The 617 Squadron Netherlands Aircrew Memorial Foundation is to commemorate all crew members and former crew members of 617 Squadron Royal Air Force who have lost their lives since its formation in March 1943.



www.617sqn-naml.nl
www.facebook.com/617SquadronNMF
contact@617sqn-naml.nl

The Master's Message

Captain Chris Spurrier

I write this shortly before the Trophies and Awards Banquet because that is rapidly followed by our departure for the second stage of our tour of the regions. The schedule certainly looks full – it will be a busy trip but interesting. But then, the Master's whole year is always busy.

We certainly live in interesting times. First the Ryanair debacle and then the collapse of Monarch. The former was an astonishing example of mismanagement, the latter a tragedy for all its employees. Fortunately, the Government had in place plans to rescue all the Monarch passengers stranded abroad. Ryanair was an entirely different story. Our media team, guided by Ben Griffiths, was quick to request comment, and the DAA and I both produced responses to Mr O'Leary's statements. I understand one national newspaper has its legal team considering the implications of some of our opinions so you may not see them in print. There is a revealing interview with a Ryanair pilot on line. Google LBC - Ryanair Interview.mp3.

This is a good time to emphasise that we now have a PR/Comms team set up with Powerscourt, a leading strategic communications and reputation management consultancy. The Strategic Plan emphasised the need for us have a professional communications team to enhance our visibility and, indeed, that's something which has always been part of my vision for the Company. Ben Griffiths (who works at Powerscourt) was the aviation correspondent for the Daily Mail, and is well versed in aviation matters. Powerscourt already handles PR for Airbus and BP. Ben has insisted that I

join LinkedIn and Twitter, both of which I have thus far avoided like the plague, being of an age when communications pretty much went by stagecoach. I'm sure some of you will have been surprised by an invitation to join my LinkedIn contacts, and you now know why. I yet have to discover what to do with it – I need a ten-year old instructor. Twitter will be next. For Powerscourt, there is a dedicated email address – airpilots@powerscourt-group.com – where you may send any newsworthy items.

As ever, I've represented the Company at some extraordinary events. One of the highlights was the awards ceremony for the Livery Companies' Apprenticeship Scheme, held at Plaisterer's Hall. It's covered elsewhere in this edition but I mention it because encouraging and assisting young people into aviation is one of our key aspirations – this is one example of how we are going about it. Those of you who attended the T&A Banquet will know that my speech hinged on the three pillars of the London Livery: fellowship, stewardship and philanthropy. As a company, we are quite strong on fellowship and philanthropy. We're not bad at stewardship, either. For many years we have been offering gliding courses, flying scholarships and academic bursaries but we must try a little harder. The need to bring young people into aviation is clear to us all. Not just as professional aviators, although that is clearly necessary, but also as hobby flyers. That isn't meant to sound patronising but it's difficult to find a better word for those who just enjoy flying for its own



sake. The more people who understand what it is we do and what a wonderful experience it is, the fewer there will be who are opposed to general aviation. To achieve that we must start with the very young and that means the promotion of flying, engineering, and associated career paths in both primary and secondary education.

I mentioned in my March message that we are working on a partnership with the Science Museum, who already have an outreach programme. I was privileged to be one of a small group hosted by Dame Fiona Woolf and David Rooney (Curator of its 'Time, Navigation and Transport' section). We were shown over the Mathematics Gallery, which sounds very dry but believe me, it isn't. The centre piece is an aeroplane surrounded by representations of the airflow around it, actually following the patterns derived from the Navier-Stokes equations. Those are rather difficult equations describing airflow around a moving body, but the architect was also a mathematician! This gallery is absolutely fascinating and has proved very popular, especially (and improbably, I would have expected) with young people. If you're in London with a spare couple of hours, take a look. It's well worth it. This co-operation is just beginning, but in the near future we will be seeking volunteers to speak at their local schools. We have also, via the Air Pilots Trust, seed-funded an initiative by Professor Averil MacDonald, who was introduced to us by Assistant Professor Marion Wooldridge. Averil's work is to persuade youngsters from all backgrounds, most of whom would

LCAS Achievement Ceremony, October



never consider the “difficult” subjects, that they can and should strive to enter aviation. Averil has had great success in other industries including the railways.

I’ve just mentioned “associated career paths”. One of them is Air Traffic Control. Past Master Chris Ford arranged a fascinating visit to Swanwick Air Traffic Control Centre, where we were generously hosted by the General Manager, London Terminal Control. Whilst there, one of our number, Captain Dave Reed, offered to take some controllers flying when he has a spare seat or two. This was seized with great enthusiasm. It’s a great benefit for air traffickers to get in the air and experience the other side of the coin. At present the only way they see what happens at the sharp end is in a rather unsatisfactory simulator so if anyone

could take some ATC chaps for a ride they would be very, very grateful. If you ever have a spare seat, Pete Dawson, General Manager London Terminal Control, would love to hear from you. His email is peter.dawson@nats.co.uk.

In our cosy world of aviation we tend to forget that we’re also part of the wider City of London Livery. I suspect there are many members who don’t realise that it’s the Liverymen who each year elect first, the Sheriffs and then, on Michaelmas day, the new Lord Mayor. All liverymen may attend the elections which are usually followed by lunch, in our case at Cutler’s Hall. The Michaelmas Day ceremony is especially impressive, starting with a procession of all Masters, Aldermen and Beadles to a service at St Lawrence Jewry and then, after the election, the newly-elected Lord

Mayor leaves, heralded by trumpets and with the church bells ringing. It’s all very splendid and very British. Paula was outside Guildhall waiting for the exit procession when some tourists asked what was going on. She persuaded them to stay and watch. They were most impressed. Ceremony is something we do very well in this country and we should be proud of it.

Paula and I are about to depart and must get on with the packing. An interesting exercise since the temperature in Wellington is 13 degrees whilst it’s 35 in Hong Kong. We shall be back in time for the Carol Service. We wish you all a very, very happy Christmas and a safe, prosperous and peaceful New Year.

GAZETTE

APPROVED BY THE COURT 16 NOVEMBER 2017

ADMISSIONS

As Upper Freeman

Colin Stuart BELL

John Ralph Alexander GRIME (AUS)

Matthew Simon HINDES (AUS)

Peter Richard HUGHES

Roger Philip MINARDS

Stewart Clyde PINNEY (HK)

Andrew John SCOTT (NZ)

Richard SELLERS (AUS)

Christopher James SMITH (HK)

As Freeman

Annie HAYNES (AUS)

Michael Timothy HOLLAND

Jan HOULBERG

Richard James LAKE

Andrew Robert McKINNIE (AUS)

Benjamin Alan NELSON (AUS)

David Hiu Fung SAMPSON (HK)

As Associate

Harry James BUTLER

Alexander James FRASER

Chieh-Ling LI (AUS)

Steven MILLS (AUS)

Alex REYNIER

Thomas Walton RAE BURN

Rachelle Krystyna ROGERS

Toon Jozef Gerardus STORKHORST

Nathan Cary THOMPSON (AUS)

Nigel Graham Gerard TOWLER

Scholarship Admissions

As Freeman

Sarah EVANS-BOYD

As Associate

Liam Callum BENNETT

Jonathan David BRADFORD

Melissa BROOKS

Samuel George GRIFFITH

Thomas James MARTIN

Robert NORRIS

Mark Nicholas PALMER

Ben ROURKE

Stanley SPARLING

Leo TANG

ACKNOWLEDGED BY THE COURT

16 NOVEMBER 2017

REGRADE

To Livery

Craig PENRICE

Captain Kevin Michael GREENE

Dr Ian McKENZIE

Air Commodore Keith DENNISON

James Robin ALEXANDER

Captain Obet MAZINYI

Captain Lachlan Stuart LAWFORD

Captain Michael John ZAYTSOFF

To Upper Freeman

Greg MILLER

To Freeman

Gilbert DOUGHERTY

WAIVING OF FEES

Over 40 Years Continuous Membership

Regmund DARWELL (AUS)

Kenneth DAVENPORT (AUS)

Lyall KLAFFER (AUS)

Patrick PRESTON

DECEASED

John BATTY

Philip BRETNALL

William CAPE (AUS)

Mariam DRIESSEN (OS)

David SHEPHERD

Jeremy THOMPSON (AUS)

RESIGNATIONS

Timothy BAILEY

Martin BARRACLOUGH

Peter BRADBURY

Alexander BRAITHWAITE

Jessica CURD

Lucas DOWD (AUS)

James LAMBERT

Eleanor McBRIEN

Mark MILLER

Andrew MILNE

William MILLER (AUS)

John O’KEEFE (AUS)

Mario ROFAIL

Paul WESTON-JONES

Jerem ZWART (AUS)

The Trophies and Awards Banquet

Guildhall 26th October 2017

By Assistant Paul Smiddy, Honorary Editor

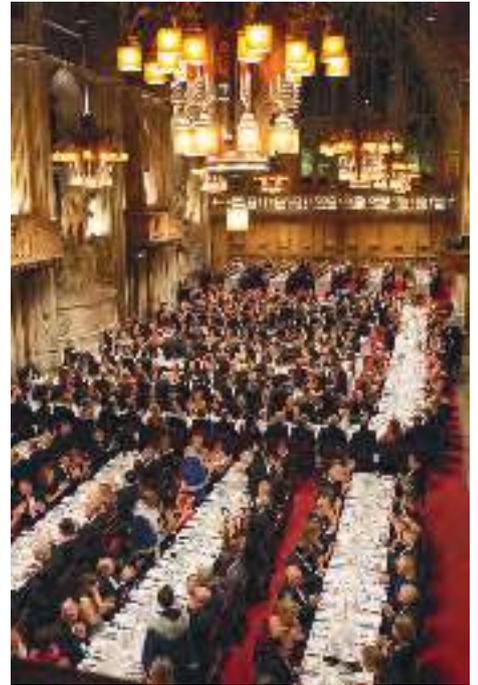
Our main banquet once again took place in the impressive surroundings of the City of London's Guildhall on October 26th. At a meeting of the Court in the Crypt beforehand, the Master, Captain Chris Spurrier, witnessed the clothing of twelve new Liverymen. Captains DC Francis, LS Lawford, and O Mazinyi, Doctors SJ Waller, and I Mackenzie, and Messrs MD Beech, P Trethewey, DJ Hawkins, K Dennison, MJ Zaytsoff, and JR Alexander were all welcomed into the Honourable Company as fellow Liverymen.

The Master also presented Master Air Pilot certificates to Capt AH Creighton, Mr J Ferraro, and Wg Cdr J Lynch, Master Air Navigator certificates to Lt Cdr S Daw, and Wg Cdr DR Herriot, and a Master Rear Crew certificate to

WO1 IS Thompson.

After the Court meeting members and guests proceeded to the champagne reception in the Old Library, with the Pikemen and Musketeers of the Honourable Artillery Company in their familiar guardian angel role. Although they appear nowadays to be a particularly favoured companion for 'selfies'.

Our Guest of Honour was Air Marshal Stu Atha CB DSO, representing the CDS, ACM Sir Stuart Peach. Other senior guests included the Masters of the Farmers, Coachmakers, and Master Mariners. Lt Col AM Gilks of the Army Air Corps, Gp Capt Finn Monahan (Comdt CFS), Wg Cdr A Tano (OC 101 Sqn), were the senior UK military representatives. We were also honoured to have as guests the air attachés of



New Liverymen stand to be recognised in the Great Hall

New Liverymen with the Master

*Front row - MD Beech, DC Francis, SJ Waller, the Master, MR Craft, P Trethewey, DJ Hawkins
Rear row - K Dennison, I McKenzie, LS Lawford, O Mazinyi, MJ Zaytsoff, and JR Alexander*



Canada and the USA.

The Beadle, Ted Prior led the Master and senior guests into the Great Hall for dinner. After Grace enunciated in customary style by our Honorary Chaplain, the Venerable RJ Pentland, the Master invited the newly-clothed Liverymen to stand and be recognised. With vigorous music from the London Banqueting Ensemble, and very efficient service by the Guildhall's catering staff, the meal passed at pace. After the sung Grace, the Loving Cups were circulated, followed by toasts to Her Majesty the Queen, the Royal Family, and the Lord Mayor and the Corporation of the City of London. The trophies were awarded by AM Stuart Atha. This year the Trophies and Awards Committee was in an unusually generous mood, with three awards (the Sword of Honour, the Master's Commendation, and the Sir Alan Cobham Memorial Award) all being made twice. Citations can be found on the Company's website.

After the presentations the Master addressed the multitude, endorsing the Lord Mayor's pillars of the Livery movement: Fellowship, Stewardship and Philanthropy. He gave a brief overview of the Company's work in apprenticeships, outreach to the young, and encouragement of learning in STEM subjects. He noted the achievements of our trophy recipients, and proposed the toast to our award winners and guests.

We were graced with the presence of Air Marshal Atha only because the Chief of the Defence Staff, ACM Sir Stuart Peach, had handed him the baton at only

The Master's speech at Vr



Paula and the Master greet Liveryman and Mrs Steve Slater



WO 1 IS Thompson & Lt Cdr S Daw



Gp Capt A Martin (RAAF) and others

a week's notice. A good job then that AM Atha is used to acting as his boss' "stunt double", in his own words! He gave us a very well received overview of the RAF's activities, and looked forward to next year's centenary celebrations. With a deft touch he highlighted the several areas of mutual interest (eg True North and drones). Flattery is always well received, so the assembly noted kindly his comments that "*On many issues your voice is louder than ours in the*

The Master Elect congratulates Obet Mazinyi in the company of a Pikeman



national debate". Full copies of his and the Master's speech can be found on the Company's website.

Afterwards the Stirrup Cup was well used in the Old Library giving a chance for many to offer personal congratulations to the award winners. A multitude then progressed to the Cowdray Room at the RAF Club where queues slowed down consumption from Guildhall levels!

AM Stu Atha delivers his deft response watched by the Master Coachmaker, Tony Edwards



The full citations for all the award winners can be found on the Company website; here follows the abbreviated citations which were read by the Learned Clerk during the presentation of awards at the banquet.

The Award of Honour



Air Chief Marshal Sir Patrick Hine has had a long and very distinguished career in aviation and aerospace. He joined the RAF at age 18 and flew the Meteor and then the Hunter, flying with the world famous aerobatic team, the Black Arrows. He later flew the Lightning and the Phantom.

Following a number of various senior command and staff roles, including Vice Chief of the Defence Staff and finally Commander-in Chief Strike Command, during which time he was Joint Commander of all British Forces during the First Gulf War, he retired from the RAF in 1991. A career as a much valued adviser to BAe then ensued until his retirement from this in 1999.

To this day Sir Paddy, as he is affectionately known, remains actively involved with the aviation world and his sage advice continues to be sought after and valued. In recognition of his considerable contribution to aviation and aerospace over more than 60 years, Air Chief Marshal Sir Patrick Hine is awarded the Award of Honour.

The Award of Honour



John Tribe was awarded a flying scholarship from the RAF in 1954, having previously gained his PPL. However, when he failed the medical because of a cold and blocked Eustachian tubes, he had to alter his aviation career path.

Five years later he passed out as the top DH apprentice for that year with an honours degree in Engineering and he headed across the Atlantic for a job at Cape Canaveral. There then followed a 37 year career in the space programme, where he eventually became Chief Engineer on the Shuttle Orbiter. He led the Rockwell team at Kennedy Space Centre on the Challenger investigation and returned from retirement for the Columbia investigation in 2003.

He is still active at the Kennedy Space centre, continuing a career in aviation and aerospace spanning 62 years. John Tribe's inspirational and highly successful career in aviation and aerospace, due mainly to his own dogged determination to succeed, is truly deserving of recognition by the award of the Company's Award of Honour.



The Derry and Richards Memorial Medal



Andy Strachan has been the Chief Test Pilot of Leonardo Helicopters at Yeovil for the last 5 years and he is considered the most experienced current Helicopter Test Pilot in the country. After joining the RAF in 1981, he was selected for Instructor Training in 1983 and then Test Pilot Training 7 years later. Andy came top of his ETPS course in 1990 and his final report on leaving the RAF, after a 16 years' service, described him as an exceptional test pilot with unlimited potential.

He then moved to Westlands – now Leonardo Helicopters (UK) – where he is now recognised as the world wide subject matter expert on the Merlin family of aircraft.

After 36 years and 10,000 hours airborne he is still very active in test flying despite his considerable managerial and administrative workload in his current role. Andy Strachan has contributed significantly to the art and science of British Rotary Wing Test Flying and is a truly worthy recipient of the Derry and Richards Memorial Medal.

The John Landymore Trophy



This award is for our best PPL scholarship winner for the year and is this year won by Robert Norris, who completed PPL training with Cambridge Aero Club.

From the initial impression that he made upon the scholarship selection committee to the approach he adopted during his flying training, Robert was exemplary.

As a result of his personal qualities and professional, competent approach to flying demonstrated during his training for a PPL, Robert Norris is awarded the John Landymore Trophy for 2017.

The Glover Trophy



Senior Aircraftman Aaron Garcha was awarded a RAF Charitable Trust Junior Ranks Pilot Scholarship in 2016. Training at RAF Brize Norton Flying Club, he was a model student and absolute credit to his rank and trade. Documenting his training on social media, he has proven to be an inspiration to many other junior ranks.

He achieved his full Light Aircraft Pilot Licence in minimum hours and club record timescales. However, most impressive has been his drive to encourage and mentor other junior ranks to pursue their flying dreams and he has personally invested significant time in guiding others through the scholarship application and training process. For his exceptionally hard work, professionalism and commitment on his scholarship course at RAF Brize Norton and helping to encourage ambition among his peers, SAC Garcha is awarded the Glover Trophy.

The Award for Aviation Journalism

Elfan ap Rees is a pilot who has more than 90 types in his logbook. He began his aviation career in 1961 in the Technical Publications Department of Westland Helicopters, and later became an aviation journalist.

In the 1970s, Elfan began collecting helicopters and components, and with extraordinary energy and dedication he has built over 40 years a unique world-class museum, showing the next generation how Britain once led the world in rotorcraft development.

This year he marks 40 years as Editor and Publisher of 'Helicopter International', recognised worldwide as the number one intelligence source for the helicopter industry. This is probably the longest continuous editorship of any aviation magazine under the same publisher. For his longstanding work as an aviation journalist and for his efforts to promote and preserve rotary aviation within UK, Elfan ap Rees is awarded the Air Pilots' Award for Aviation Journalism.

The Sir Alan Cobham Memorial Award



Since assuming the role of co-ordinating the Company Visits Programme, David Curgenvin has ceaselessly striven to expand the involvement of all members of the Company by building upon the past portfolio and incorporating a greater variety of visit locations.

Over the last few years the Company Visits programme has gone from strength to strength under David's able guidance and now regularly features 18-20 visits each year, involving some 300-350 members, and enhancing the good name and reputation of the Company. Through David's careful co-ordination, the variety of events available always promises something of interest, and his role in ensuring such a superb spread of activities cannot be underestimated.

In recognition of his commendable service to the Company, David Curgenvin is awarded the Sir Alan Cobham Memorial Award.

The Sir Alan Cobham Memorial Award

For the past three decades, Peter Bird has illuminated and inscribed every certificate that the Company has produced and awarded. That represents over a thousand certificates of various types, many of which have included hand-painted, colour crests with gold-leaf inlay. Of course, Peter has been paid for his work, but he has only ever charged a minimal fee which can only ever have barely covered his costs – other calligraphers are astounded when they hear how little he has charged for this

service for many years.

Peter retired from his teaching profession a number of years ago, but has recently also had to reduce his time and role as a talented and dedicated calligrapher. For his enduring dedication of time, and commitment of effort, in over 30 years service to the Company, way beyond any paid recompense for his work, Peter Bird is awarded the Sir Alan Cobham Memorial Award.

The Grand Master's Australian Medal



The RAAF's Aerobatic Team, the Roulettes, recently celebrated 45 years of formation aerobatic display flying across Australia and the Asia Pacific region.

The Roulettes Team was formed from RAAF Central Flying School staff in 1970 in order to perform at the 1971 RAAF Golden Jubilee celebrations. Since then the Roulettes has made a significant contribution to the aviation community in Australia through its commitment to the performance and continued development of formation aerobatic displays.

The team is not able to be here tonight but is represented by Gp Capt Martin, Air Advisor at the Australian High Commission. In recognition of their meritorious contribution to aviation in Australia, the Roulettes aerobatic team is awarded the Grand Master's Australian Medal.



The Australian Bi-Centennial Award



Bas Scheffers is a private pilot, aircraft owner, and the developer of Australia's most utilised Electronic Flight Bag and navigation service - Oz Runways.

Oz Runways was developed as an App for phones or tablets, eliminating 'out-of-date' charts and improving pilot preparation, and is now a fixture for many pilots, airlines and agencies throughout Australia, including the Australian Defence Force. Bas has personally flown more than 36 Angel Flight medical missions using the App and it is now used by many other pilots servicing the medical and welfare needs of people living in remote parts of Australia.

Bas Scheffers is recognised for his meritorious contribution to aviation safety through his innovation in the development of the Oz Runways App and his charitable Angel Flight activities by the award of the Australian Bi-Centennial Award.

The Pike Trophy



Piers Smerdon has had a long career in flying instruction, mentoring and advising hundreds of pilots through their early careers. His own career has spanned instructing in the UK, USA and Saudi Arabia and he is currently the CFI at Command Pilot Training, an organisation

that provides effective preparation for a career in commercial aviation.

Having logged over 35,000 hours, the vast majority of which are flight instruction, Piers has always taken a personal interest in each student and tailored their training to their personal requirements, finances and abilities. It is this personal care that really marks out Piers. Held in high esteem by his peers, and in recognition of a long and successful career delivering the highest standards of flight instruction and the gratitude of thousands of students, Piers Smerdon is awarded the Pike Trophy.

The Master's Commendation



Rosella Bjornson knew from early on that she would become a pilot, despite being told by a careers counsellor that it wouldn't happen 'because she was a girl'.

In 1964, she took her first flying lesson and, by 1969 Rosella had earned her Instructor Rating, and by 1973 had accumulated 3,500 hours, an air transport rating, and a multi-engine instrument rating. In 1973, Transair offered her the choice of Captain of a Twin Otter or First Officer on the F28 jet, and she became the first woman to be a First Officer on a commercial jet in North America.

However, when she became pregnant, she lost her medical and had to take leave of absence from Transair as there was no maternity leave by right at that time. She eventually returned to the flight deck, and converted to the B737, before changing airlines to Air Canada where, in 1990, she became the first Canadian woman Captain.

Through her professional attitude, quiet example, and irrepressible good humour Captain Rosella Bjornson made being an airline pilot a career option for women in Canada and beyond. She is accordingly awarded the Master's Commendation.

The Master's Commendation

Lt Col Kevin Hall singularly built the F-35 depot flight testing capability at Hill AFB from the ground up. Starting in 2013, he single-handedly masterminded planning, training, and operations for all three variants of the F-35. He paved the way for and flew the first F-35A at Hill AFB and has checked the airworthiness, including the first flight of each variant, on every F-35 passing through the flight testing facility.

In the past year alone he has flown 45 elevated risk check flights and flawlessly handled 13 major systems failures and emergencies. His ability as an expert test pilot, master integrator, and problem solver has made a remarkable impact at the test depot and forged the future of F-35 operations. This contribution of indispensable leadership and skill in building a world class depot capability is recognised by the award of the Master's Commendation.

The Myles Bickerton Trophy



Donatella Ricci is the NH 90 helicopter Programme Manager for Leonardo Helicopters in Italy who, in her leisure time, is an ultralight and autogyro pilot and flying instructor. In early 2015, she began a campaign to achieve a new FAI World Altitude

Record for autogyros, and on 8 November 2015, she achieved the record of 27,556 feet. The campaign was self-financed, and she flew with a limited supply of oxygen in an open cockpit with just a windscreen, layered clothing and some electrical heating to protect from the elements. Lack of space and disposable load meant that flight tests of this unproven variant of the autogyro had to be done without a parachute.

Donatella achieved this World Altitude Record with limited resources and, facing substantial risks, she displayed determination, courage and resolution, demonstrating great professional engineering and aviation acumen. She is deserving of recognition for her outstanding achievement and is accordingly awarded the Myles Bickerton Trophy.

The Hanna Trophy



Brian Smith is one of the best known and respected display pilots. He joined the Old Flying Machine Company, based at Duxford, in 1986, and was very much a trusted and right-hand man to the legendary Ray Hanna.

Alongside OFMC, Brian also flies with the other private collections based at Duxford and elsewhere in the UK, and proudly continues to display historic aircraft in the true Hanna tradition. A master of the air as a display pilot, he flies with flair and passion, and a lot of ability. With over 27,000 hours and type-ratings varying from the Jumbo to the Spitfire, he is sought after for advice and he is very much seen as a master of his craft.

For his outstanding contribution to the

art of display flying, Brian Smith is awarded the Hanna Trophy.

The Johnston Memorial Trophy



Air operations have been the mainstay of UK remote scientific field work in Antarctica for over 50 years, permitting extensive scientific campaigns that could only have been achieved by mixing all the modern resources of tactical airborne logistics support.

The BAS Air Unit's aircraft are maintained in Canada during winter and ferry to and from Rothera, the UK's airbase on the Antarctic peninsula, each year. From Rothera, pilots regularly remain with their aircraft at significant distances from their base, for several days, supporting a team of scientists. Exceptional pilot skills, good airmanship and outstanding teamwork makes possible access to the most inaccessible of science targets.

The British Antarctic Survey Air Unit is recognised for its invaluable support to Britain's scientific survey programmes in the Antarctic for over 50 years, and outstanding performance in the operation of airborne systems, by the award of the Johnson Memorial Trophy.



The Sword of Honour



Stephen Grey established the Fighter Collection at Duxford over 25 years ago. At that time Stephen's aim was to collect an example of every single Allied fighter aircraft that had flown in the Second World War and, from the list of aircraft currently in the Fighter Collection, Stephen has achieved a great deal towards that early dream and has also expanded his collection beyond its original aim.

The Flying Legends two-day annual air display at Duxford, recognized as one of the premier air displays in the world, is testimony to the contribution Stephen has made in bringing vintage fighters and other similar aircraft from both this country and overseas to the public for the appreciation and admiration of all.

In recognition of his enormous contribution to the United Kingdom's air display industry, Stephen Grey is awarded the Sword of Honour.

The Sword of Honour



The National Police Air Service was conceived in 2007 although national operational coverage was only achieved in September 2016.

All will be familiar with the terrorist attacks in Westminster and Manchester

earlier this year, but these events marked the coming of age of NPAS as a critical national asset. In the case of the Westminster attack, the first aircraft was tasked from Redhill and was overhead within 6 minutes of the request with subsequent aircraft, from multiple bases, relieving on scene until the situation stabilised. Likewise, for the most recent attack in Manchester, NPAS aircraft maintained a constant presence for the first 9 hours of the operations.

In 2016, NPAS aircraft were called-out over 28,000 times, delivering 18,000 flying hours. Coordinated police aviation operations on this scale would not have previously been possible without the existence of a national organisation. For its outstanding contribution within the sphere of General Aviation, the National Police Air Service is awarded the Sword of Honour.

The Sir James Martin Award



In today's increasingly crowded and complex airspace, minimising infringements and ensuring the safe conduct of flight by the GA sector has been greatly aided by the combination of popular technology and flight information, as demonstrated by SkyDemon.

SkyDemon has sought, by working with the pilot community, to provide a comprehensive capability to plan and conduct flights for those without the benefit of a flight operations department. The sourcing and presentation of data covering mapping, terrain, NOTAMS, flight plans, weather, airfield data and more in a useable way has greatly aided safe planning and conduct of flight within the GA sector. Information

which has previously only been available via various disparate sources, is now available to the pilot from one single source.

SkyDemon has equipped today's pilot better than ever for the safe planning and conduct of flight. In recognition of its practical contribution to the safer operation of aircraft, SkyDemon is awarded the Sir James Martin Award.

The Master's Medal



Last year, after landing at a location in Africa, an RAF C130J aircraft, with 5 tonnes of dangerous goods on board, caught fire when the brakes on the right-hand side overheated and ignited. The captain ordered an evacuation and Flt Sgt Rowlands ensured that all crew and passengers had disembarked safely before proceeding to exit himself. Realising that the fire presented a serious risk to the dangerous cargo that was still on board, with significant danger of aircraft loss and risk to life, Flt Sgt Rowlands took the decision to place himself at serious personal risk and fight the fire that was threatening to get out of control.

With the assistance of airfield fire services, the fire was brought under control, but Flt Sgt Rowlands' swift actions were instrumental in saving the aircraft and explosive cargo and protecting the passengers.

Through his courageous action, the extent of the fire was limited to the brakes and wheels, allowing the aircraft to return to operations after only 48 hours of repair. For his bravery, selflessness and decisive action, Flt Sgt Rowlands is awarded the Master's Medal.

The Master's Medal



In July last year, Commander Matthew Grindon was Captain of a Gazelle helicopter from MOD Boscombe Down. When a Yak-52, also operating from Boscombe, transmitted a 'Mayday', he and his co-pilot heard the crew's intention to make a forced landing and went to their assistance, subsequently finding the Yak crashed in a remote field.

Landing nearby, Cdr Grindon found the front seat pilot had been thrown clear from the aircraft and appeared lifeless. Unable to open the canopy and with the other pilot's injuries and damage to the aircraft trapping him, Cdr Grindon immediately instructed his co-pilot to get airborne to report over the radio and request urgent medical support and cutting gear.

Realising the site's remoteness, he also instructed his co-pilot to use the Gazelle's position to signal the crash site and then to hover-taxi and guide responders to the aircraft. Once emergency services were on site, he returned to Boscombe, assisting them to manage the event and subsequent actions.

Cdr Grindon's reactions kept a severely injured pilot conscious and permitted a timely rescue operation. For his immediate and probably life-saving actions, Cdr Matthew Grindon is awarded the Master's Medal.

The Central Flying School Trophy



With a 32-year RAF career as a technician, crewman, navigator, pilot and aircrew instructor, Wg Cdr Harry Palmer was the ideal candidate for the crucial appointment as Chief Flying Instructor at the Defence Helicopter Flying School.

He has been the champion of the tri-Service flying training approach, and has personally cemented the School's world-renowned reputation. As the transition to the new UK Military Flying Training System has approached, the sheer scale of the portfolio that Wg Cdr Palmer has somehow managed to juggle is staggering.

Wg Cdr Palmer is an exceptional individual. His combination of experience, calm nature and focussed interaction has ensured success and perfectly positioned the Defence Helicopter Flying School for transition, while his inspiring leadership has protected the School's world-class output. Wg Cdr Harry Palmer is accordingly awarded the Central Flying School Trophy.

The Grand Master's Commendation



Commander 'Bertie' Vigrass joined the Royal Navy at the age of 19, with the firm objective of wanting to be a pilot. In 1942, after pilot training, and extensive land-based carrier landing practice, he joined HMS *Illustrious*, off Madagascar, flying the *Swordfish*, and he remained with *Illustrious* throughout the war. After the war, Bertie continued with the RNVR and was given command of a *Seafire* squadron, and later, in 1954, was awarded the OBE for services to aviation.

Bertie then devoted his energy to the next generation: for 20 years, he was Controller of Operations of the Naval Gliding Scholarship Course programme of the FAAOA Aviation Scholarship Trust. Bertie was instrumental in permitting this scheme to continue after budget cuts restricted the RN's ability to support it, by raising funds each year from corporate and individual sponsors, thus ensuring that up to 40 young people each year had this gliding opportunity.

Cdr Bertie Vigrass, a courageous aviator and truly dedicated supporter of naval aviation, is a worthy recipient of the Grand Master's Commendation.



The Cumberbatch Trophy



Since 2004, there has not been a single naval aircraft accident involving loss of life, and the number of aircraft accidents per se has reduced to previously unheard of levels. There are many factors underlying this welcome reduction, but significant among them is Cdr Fitter's outstanding and persistent commitment to promotion of aviation safety and learning from lessons identified.

In 2003, after 19 years' flying experience spanning embarked operations and instruction, Commander Fitter began his 'safety career'. In 2005, he was appointed Officer in Command of the RN's Flight Safety and Accident Investigation Centre, before becoming Cdr Air at RNAS Culdrose where, to date, he retains the record as the longest serving Commander Air in Culdrose's seventy-year history.

In 2012, he returned to the RN Flight Safety Centre where he has been instrumental in the development and introduction of the pan-Defence Aviation Error Management System.

Cdr Fitter's outstanding contribution to RN aviation safety is undoubtedly worthy of recognition through the award of the Cumberbatch Trophy.



The Brackley Memorial Trophy



Since 1965, 40 Sqn RNZAF has been flying C130 missions to Scott Base, near McMurdo Sound in Antarctica, providing strategic support to the New Zealand and United States Antarctic programmes.

The operations have normally comprised 10-12 flights annually from New Zealand onto an ice runway during the summer months. Sound operational techniques have been developed to maintain reliable operational capabilities in ground temperatures as low as -42°C . Since 2010 the Squadron's B757s have also been approved to operate effectively into the region.

The fact that the RAAF, RAF, Air New Zealand and other agencies all seek advice from 40 Squadron when contemplating and planning Antarctic missions is testament to the unit's proven skills, experience, reputation and effective development of air transport operational techniques and capabilities into this frontier zone.

Represented tonight by the CO, Wg Cdr Andy Scott, 40 Squadron's 50-year milestone of skilful operations into the Antarctic, and its spotless safety record over those five decades, is recognised by the award of the Brackley Memorial Trophy.

The Grand Master's Medal

In September last year, Capt Matthew Shipp was flying an F-16 on operations in the Middle East when, during a scheduled air refuelling, he heard a loud 'pop' and realised that the aircraft was

stuck at full throttle and unresponsive to throttle adjustments.

With his low fuel state, the decision was made to divert to the nearest coalition-controlled airfield, which lay deep within hostile territory. The only way Capt Shipp could control the speed of the aircraft was by keeping a constant tight turn and high G-force, while the other aircraft of the pair led the diversion to an unfamiliar airfield. Eventually, after 30 minutes of relentless high-G flying, Capt Shipp was able to shut down the aircraft's only engine to permit a safe landing. Fighting through the disorientation and fatigue induced by the continuous high-G, he was able flawlessly to glide the aircraft to a safe landing.

Capt Shipp's professionalism saved a valuable USAF asset and prevented possible civilian casualties in the event of an uncontrolled crash. He is a deserving recipient of the Grand Master's Medal.

The Hugh Gordon-Burge Memorial Award



Flight Lieutenant Kinsler was Captain of a C130-J Hercules recovering to RAF Brize Norton on instruments when, at approximately 5,000 feet there was a failure of both inertial navigation units and Standby Attitude Indicator, leaving him with only Standby Air Speed Indicator, Altimeter and E2 Compass.

At night and in poor visibility, with neither real nor artificial horizons available, the aircraft rapidly began to enter an unusual position, accelerating by 30 knots and descending by 500 feet. Demonstrating exceptional awareness, Flt Lt Kinsler quickly diagnosed entry into a spiral dive and, crucially, by unloading the

control column, he avoided entry into an unrecoverable position. Then noticing ground lights illuminating a faint horizon against the cloud, and able to use this as an attitude reference, he skilfully recovered to straight and level flight. He declared a MAYDAY and with guidance, initiated a climb and transit north, eventually conducting a visual let down and safe recovery to RAF Coningsby.

Innate flying ability was all that had stood between the crew and an unrecoverable position. His exceptional awareness, impeccable captaincy and raw handling ability undoubtedly prevented an accident over a densely-populated area. For his distinguished and exceptional flying skill, Flt Lt Karl Kinsler is awarded the Hugh Gordon-Burge Memorial Award.

The Prince Philip Helicopter Rescue Award



In October 2015, Coastguard 'Rescue 912' was tasked for the immediate extraction of a 24 year-old female hill walker who had fallen down a 40m rock face located on Langdale Fell.

Due to very low cloud and poor visibility, two unsuccessful attempts at low level were made to enter the hills to the south of the Lake District region, before a refuel and eventual arrival at Ambleside MRT in only marginal visibility, two hours forty minutes after departure. The on-scene weather conditions were reported as 50m visibility, calm winds and fading light levels. Given the life-threatening nature of the casualty's injuries and the likelihood that she would not survive a protracted stretchered walk off the

mountain side, the crew courageously elected to proceed with her rescue.

At Langdale Fell, the aircraft entered cloud and had to hover-taxi up the mountainside, following a small pathway, to the casualty's location. In fading light, the crew successfully accomplished a very challenging stretcher recovery from under an overhang in a confined area with the aircraft rotor tips only metres from the surrounding crags. The crew were then compelled to hover-taxi using night vision aids in low visibility down the mountainside into Great Langdale Valley before being able to climb and transit to Preston Hospital. R912 then returned to Humberside, after a six and a half hour rescue operation.

Throughout the rescue, the crew demonstrated the highest levels of professionalism, commitment and dedication to the task and bravery that exceeds expectation and is deserving of recognition by the award of the Prince Philip Helicopter Rescue Award.

The Prince Philip Helicopter Rescue Award



In February last year, Coastguard Search and Rescue helicopter, Rescue 951, was involved in a very challenging rescue of two avalanched climbers in Northern Scotland. Arriving on scene, R951 was able to ferry several mountain rescue team personnel to the site and then joined in the search.

Eventually, at about 1000 feet above the avalanche, a climber was spotted hanging on two ropes with another climber sitting on a small ledge approximately 150 feet higher up. With the possibility that the suspended climber was acting as

a counterweight to the higher one, cutting the lower climber free could remove the security for the upper climber and, conversely, if they cut the upper climber free, the lower climber could fall. Furthermore, the lower, suspended climber was not moving and appeared to be badly injured. Taking great care, they ascertained the higher climber appeared to be secure. The helicopter was positioned 1000 feet above the base of the gully, abeam the lower climber, and the Winchman deployed to the steep, near vertical slope.

In order to reach this position, the aircraft had to hover with the tips of the rotor blades approximately 10 feet from the rock face. With very little margin for error, the Winchman lost contact with the rock face several times but he remained calm and persevered to reach the climber. Once recovered to the aircraft, the Winchman and Winch Operator provided effective CPR to the unresponsive casualty. On completion of this, R951 was positioned above the higher casualty, again in very close proximity to the rock face, where the Winchman successfully cut the second climber free from ropes. With no further casualties reported, R951 then returned to base, having undoubtedly saved the lives of both climbers.

Despite the severe technical difficulties and circumstances of this highly exposed and hostile rescue situation, the Crew of R951 demonstrated the highest levels of skill, crew co-operation, professionalism and bravery and are accordingly awarded the Prince Philip Helicopter Rescue Award.

From the Desk of the Director Aviation Affairs

Liveryman John Turner

Brexit continues to concentrate minds but there are encouraging signs in other areas.

BrExit

The general mood, supported by comments from senior CAA managers, appears increasingly to be acceptance that continued UK membership of EASA is the only viable route for the future. All that is needed now is overt political (and general public) acceptance of continued influence by the European Court of Justice that would arbitrate on any disputes relating to EASA oversight. Interestingly, today's UK newspapers revealed yet more facets of the UK-EU relationship and interdependencies:

First the airline BMI, that currently has 50% of its routes within the UK, has announced that it will shift focus to establish a wider network within other EU Member States. It says this decision is not Brexit-related but simply because it makes good commercial sense to compete in an EU market of 500 million people rather than 60 million UK market. Even so, BMI suggests that implementing this change may include a joint-venture or similar type of arrangement with an existing EU operator (that holds an EU Operating Licence) to ensure BMI's continued ability to operate within the EU regardless of the Brexit.

Equally revealing is the Association of British travel Agents (ABTA) report, "Travelling together - The value of UK outbound travel." This repeats UK government (Office of National Statistics Travel Trends 2016) data that shows UK outbound travellers spent €25.4 billion in the other member states, €7.9 billions of which was spent in Spain alone. In terms of impact, that equates to tourism by UK outbound travellers sustaining directly over 380,000 jobs and a further 486,000 supply chain jobs and over 440,000 businesses across the EU. When these wider economic impacts are accounted for, the aggregate economic benefit to the other EU Member states from UK outbound tourism amounts to €37.4 billion which highlights the clear

common ground and common interest on commercial and economic aspects.

FLY TRUE

At the beginning of the year, I mentioned that we had contacted the Royal Institute of Navigation (RIN), as well as Transport Canada and other regulators, in a bid to move forward the transition global aviation away from Magnetic to a TRUE North reference system; the alignment of poles at present makes this an excellent time to do so (and ironically, we would be catching up with the Master Mariners who made the transition many years ago).

Our True North Working Group (WG), immensely assisted by the RIN, has been spreading the idea that change would be timely (because of the current and predicted positions of the magnetic pole), and would offer real safety, and (over the longer term) economic benefits. Clearly, it is the safety factor that has our keenest interest. By way of background, compasses showing Magnetic North have served aviation well for over a hundred years; their advantages include lightness and simplicity and the disadvantages were easily compensated for when operating at low or medium latitudes. However, the disadvantages were more apparent when operating nearer the magnetic poles where the lines of magnetic force have a greater vertical component and a smaller horizontal component.

Mariners, however, have been using the True North reference for many years now as naval ships, and latterly merchant ones too, have long had a direct True Heading readout from their Sperry Gyrocompasses which align themselves to True North using the interaction of gyroscopic forces with the rotation of the earth, and thus have no magnetic input whatsoever. Sperry Gyrocompasses were heavy, and they also had some errors at high speed, especially on easterly or westerly headings. Aviators had to wait for INS before they had a good True North display, though astronavigation always worked from True North and courses were then adjusted to magnetic

by the Navigator.

Today most commercial aircraft do not have fluxgate sensors to find Magnetic North but rather apply a factor to the True North that they get from the INS to create a synthetic Magnetic North. In other words, True is the principle heading reference and the aircraft changes its principle reference to display a calculated synthetic Magnetic heading to the crew. The variation table that the aircraft uses to calculate Synthetic Magnetic Heading is sometimes contained in firmware and sometimes in software. Firmware does not get updated as regularly as software; different equipment on the same aircraft may use different variation look-up tables, as can two different aircraft. The result is that two aircraft flying the same displayed magnetic track can be diverging or converging, but if both used and flew the same true track they would really be following parallel paths. We can identify accidents related to erroneously derived magnetic reference, and some readers may remember that an airline had to restrict which aircraft it used on certain routes when their database validity expired. We have a Q&A sheet that explains the benefits in more detail but there is not space to replicate that in this issue.

Despite initial resistance within ICAO and other international and national bodies, our message that it would be safer for all commercial aircraft to switch to True, has been gathering pace, further supported by our Master's annual tour to our regions. In respect of the Master's tour, we are probably unique amongst aviation organisations because each region arranges meetings for our Master to meet senior representatives or officials from within their regulatory authorities. This year Chris Spurrier carried our message and briefing material on the benefits of a switch to True North. A combination of his advocacy and on-going WG activity has resulted in a new appreciation of the issues, with ICAO, IATA, Nav Canada (who already operate on True in their northern territories) and Pacific region organisations coming on-side. Initial discussion is no longer met by disagreement and a list of the logistic difficulties that a switch would entail but more likely to elicit a response of, 'why wouldn't we' or 'why haven't we done it already'!

Changes at an international level always take time but we will continue to influence wherever we can.

FATIGUE

Our Fatigue Working Group continues to investigate the core issues and explore how we can most effectively gain traction on the topic. This is an issue that conflates working practice and safety so it is important that we find a way of progressing the message without being immediately dismissed, or becoming associated with a Trade Union canvassing

simply for improved employment conditions.

Separately, Aberdeen University in Scotland has written to thank us for the support we have provided to their research on the impact of nutrition on flight crew fatigue. They are now analysing all the information our members provided. In due course, this should lead to an app that will provide flight crew with science-based nutritional advice attuned to their individual roster, so our efforts and expertise will benefit all commercial

flight crew (cabin and flight deck) in due course.

This link to academia may well prove useful for similar future projects.

CONCLUSION

Although major change takes time, we have made small inroads on True North and on fatigue, and will continue to seek the full scope of improvements that are needed. Brexit will introduce changes more quickly!

“It is OK to ask” Taking the Livery in the Honourable Company

By **Warden Nick Goodwyn**

There are few mysteries in life but it has been heard that ‘taking the Livery’ is one of them so allow me this opportunity to dispel some of that myth for you and at the same time ask for your help.

The Livery is, of course, at the very heart of the Company's existence as a Livery Company. In many of the City of London Livery Companies, the membership comprises largely, even solely, of Liverymen. However, many of the companies founded in comparatively more recent times often have a base membership of Freemen with only a select core of Liverymen. The Air Pilots has a large base membership worldwide of circa 2200, of which (currently) approximately 570 are Liverymen.

The importance of the Livery to the Company in the City of London is that a Liveryman is able to stand for election to the Court as an Assistant, and subsequently from there, for election as a Warden, and ultimately by progression to become Master. It would be hoped that many members would aspire to such high acclaim, however the Livery is also an important way of recognising achievement, talent and also for acknowledging those who do so much, often without fanfare, but without whom we, as a membership driven and voluntary organisation would not be able to function as a ‘working’ Livery Company and professional body.

There are many significant aspects to being a Liveryman of one of the City companies: Liverymen of the various Companies form the electoral roll of 'Common Hall' and are therefore eligible to vote in the Election of Sheriffs and to attend the Election of the Lord Mayor.

In line with the accepted traditional manner in which most Livery Companies in the City of London conduct their affairs, the Air Pilots has a formal Livery Committee, consisting of the three Wardens (not including the Master Elect) and its remit is to select a list of candidates to be proposed to the Court. It is for the Court to decide from the list of candidates presented to it whether the individual Freemen should be offered the Livery.

Any Freeman of the Company (note: 'Freeman' includes 'Upper Freeman') is eligible for nomination to become a Liveryman. A Freeman may be nominated by somebody else within the Company, be 'selected' by the Livery Committee, or importantly, may nominate themselves for consideration. Where someone is put forward by fellow Freemen, then ideally this should be done without the prior knowledge of the Freeman concerned. The Committee needs to receive a letter or email requesting that the Freeman be considered and why the individual should be considered worthy of receiving the Livery. A brief background of the

individual with information on their achievements together with notes on their current or future contribution to the Company is extremely useful to the Livery Committee.

Once the Livery has been offered to a Freeman, they must first apply for the 'Freedom of the City' (if an individual is not already 'Free of the City'). This is a ceremony that takes place in the Chamberlain's Court at Guildhall and is attended in person; it is a wonderful tradition, and an enjoyable occasion for which many bring family and friends. Then there is the payment of the Livery Fine - this is a one-off payment to the Company of a fee at a level agreed by the Court. A Freeman becomes a Liveryman on the day the 'Fine' is paid. Thereafter, the Liveryman needs to be 'clothed with the Livery' at a Court meeting prior to one of the Company dinners held during the year, which is when one is publicly recognised as a Liveryman, entered in the Livery Roll, and presented with a Livery Badge.

As the lifeblood of the Company, we are actively seeking nominations for taking the Livery and so we need your help. You may know of a most worthy candidate, or you may be such a candidate; whichever, it is OK to ask and be proud to receive the Livery of the Air Pilots and perhaps, who knows, in due course serve on the Livery Committee yourself.



Sir Frederick Tymms Memorial lecture

27 September 2017

Air Marshal Greg Bagwell CB CBE (RAF Rtd): Air Power Today and Tomorrow

By Liveryman Alan Jackson

Air Marshal Bagwell, a Tornado pilot, retired from the Royal Air Force in 2016, having most recently served as Deputy Commander Operations at Air Command. He is now president of the Air Power Association, and in that capacity (and personally) is keen to find as many opportunities as possible to broaden the debate about air power. Delivering the 2017 Tymms lecture, he addressed a large audience in the Bill Boeing lecture theatre at Hamilton Place; an audience which included, among the distinguished guests, the masters of many fellow livery companies. Noting that “fighter pilots make movies; bomber pilots make history” he reflected on the long RAF service of the Panavia Tornado; now more than forty years since its first flight, and still performing at high intensity in Op Shader, over Iraq and Syria. The public generally may be unaware that the United Kingdom is currently contributing about 1,350 personnel to the defeat of Daesh; a fascinating chart revealed our presence on the ground not just at Akrotiri, but also in Turkey, Jordan, central Iraq, Kuwait, Bahrain and Qatar. We are all aware of the RAF’s strike role, but UK forces are also active in intelligence, surveillance, and reconnaissance; the training of Iraqi and (vetted) Syrian forces; commanding ships in the Gulf; and working in joint headquarters. He commented that we had forgotten one of the principles of war in the earliest stage of the fight against Daesh: we should have interdicted their supply lines. He also observed that at the current pace of operations, it would be easy to drop our entire war stock of air-launched munitions in a year.

In the broader context, Air Marshal

Bagwell observed that surface-to-air missile technology is developing faster than aircraft. It is essential to keep up with the actual threats, whilst staying within budget. He noted that Syrian air defences, for example, are both dense and effective. He also observed that when he joined the air force, the high technology was all at work; now it seems all to be at home! The sophistication of personal computing devices has a good deal in common with computing in the F-35.

Moving on from current operations, Air Marshal Bagwell noted that air power is not just about blowing things up. He reflected on the recent relief operations in the Caribbean, following hurricanes Irma and Marie, in which UK forces had been extensively and swiftly involved, with RAF transport aircraft deployed from the UK and helicopters deployed both from the pre-positioned RFA Mounts Bay, and later from HMS Ocean. More generally, he noted that our air systems are of good quality, if not great quantity.

Turning to future air systems, the air marshal said that stealth is not the main benefit of F-35; its sensors are. He likened its role to that of the ‘quarterback’ in American football; leading the offensive team and calling the play. Possessed of superb sensors, and forming an intelligence hub, it outperforms the E-3 Sentry; and if a number are airborne, it provides redundancy in these capabilities. One key to operating the aircraft effectively will be to find a way of making the intelligence available fast to third and fourth generation systems in the air and on the ground. He warned that, because of the initially tiny force of F-35s that we will be able to field, we must expect to see the carriers deployed



without the aircraft aboard, to be joined by them when in theatre.

We must learn to be smart in the application of the new tools. As an aside, he noted a feature of the F-35 about which there may perhaps be mixed feelings among members; if the aircraft senses a problem while in the hover, its pilot is ejected automatically. One wonders who has written the code to manage that operation! Addressing the financial challenges to the defence budget of the F-35 purchase, given the reduced value of sterling relative to the dollar, he expected that the spending profile would ‘go to the right’. This would have at least some advantages. The dollar price of the aircraft should continue to fall as production increases; and later aircraft will have a more developed software suite, avoiding the cost of the complex upgrading of earlier deliveries to a more capable standard.

Moving on to discuss the use of remotely piloted air systems, Air Marshal Bagwell observed that their operators are highly capable and well informed about the battlefield. They are perhaps better equipped, with teams of three (pilot, sensor operator, and mission intelligence co-ordinator) to judge when weapons should be released than their colleagues in a Tornado or Typhoon cockpit. It is desirable that their use be better understood by the wider public; they are certainly not ‘killer robots’. As to our ISTAR capabilities more generally, he

said that the Royal Air Force has the best constellation of platforms outside the United States Air Force; but they would not survive in contested airspace, for example in a war above the Baltic. In those circumstances, we would be highly dependent on space assets; but we have very few of those. A serious concern would be the fear, in the absence of an adequate flow of live intelligence, of a resultant reduction in the nuclear threshold.

Drawing to a close, our lecturer touched on a number of other matters. Future air combat training, a key issue, would be a challenge. The simulation of a real test for the F-35 would be difficult. The provision of realistic airborne aggressors

beyond the existing facilities provided by 100 Squadron and private industry needs study. Turning to the generation of goodwill overseas, both for the country and the air force, he noted the important role of overseas tours by the Red Arrows – Asia-Pacific in 2016, and the recent tour of the Middle East. Finally, he emphasised how much the country and the Royal Air Force owe to its people; they and their achievements are not sufficiently celebrated.

Several important matters emerged in questions. Among these, Air Marshal Bagwell commented on the difficulties which might arise in the relationship between air force commanders and ministers in a crisis; for example, the

potential need for a decision to shoot down an airliner believed to be involved in a terrorist attack here in the United Kingdom; or the shooting down of a Syrian aircraft believed to be enroute to attack Akrotiri. The will to act is as big a problem as the capacity to attack. On the defence budget 'black hole', he thought that cuts to readiness are more likely than big cuts in numbers.

Altogether a fascinating lecture by a skilful, open, highly experienced and forthright speaker. The smart use of our necessarily limited assets, the significance of relevant training, and the need to celebrate the RAF's people should be in all our minds. Next year's Tymms lecturer will have a tough act to follow!

Air Pilots visit to NATS, Swanwick, 10th October 2017

By Assistant Prof. Marion Wooldridge

On 10th October 2017, a party from the Honourable Company of Air Pilots visited NATS at Swanwick, by kind invitation of Peter Dawson (General Manager – Terminal Control). Swanwick is a centre providing air traffic control services 24/7, 365 days per year, so is always 'live'. Because of this, numbers visiting at any one time are limited and the group was divided into two, half visiting in the morning, half in the afternoon, and all meeting up for a convivial lunch in the Swanwick restaurant – plus the traditional group photograph. Your writer was a part of the morning visit.

The Swanwick site is around 20 years old now, but still an impressive and attractive place to work, with plenty of trees, outside seating areas, and a very large car park – but even at 9.30 in the morning it was hard to find a space! We learned later that there are 700 controllers based at Swanwick, plus all the necessary support staff.

We were met on arrival in reception by Roger Marsh, a deputy general manager, and after passing through airport-style security, were taken to the briefing room

for a very welcome cup of coffee and a briefing from Peter Dawson. He gave us an overview of the work of NATS with plenty of facts and figures. A highlight for me was several fascinating videos showing the aggregated movements of flights over the UK as they build up through the day – a very visual and colourful demonstration of the daily NATS workload.

We learned that NATS is owned by a Public Private Partnership which includes many of the major airlines operating in the UK, and organised as two companies; NATS en route plc, together with NATS Services Ltd. It is responsible for movements in the London and Scottish FIRs, and the Shanwick Oceanic Control Area, a sizeable chunk of the North Atlantic. Together these areas comprise around 11% of European airspace, and deal with approximately 25% of European air traffic. In the 2016/17 year, NATS dealt with 2.45 million flights, and is expecting more growth in the current year.

Swanwick is not the only NATS site; its HQ is at Whitely, quite close to Swanwick, where training, engineering,



AQUILA Air Traffic Management Services (www.aquila-atms.com) and other support is based. There is another NATS centre at Prestwick, and NATS controllers can also be found in Gibraltar, plus nine Spanish ATC centres (as FerroNATS, a consortium with Ferroviales Servicios), and many military sites. Swanwick itself deals with over 5800 flights per day (a typical day of movements was shown in one of those amazing videos mentioned earlier), and Prestwick copes with more than 3700.

Swanwick is also responsible for Heathrow Approach (although not the Tower), with around 1300 flights per day going into Heathrow alone. The amount of controlled airspace has grown hugely in the UK since 1953, and is still getting

busier. In particular the London TMA is large, complex, and congested. Not surprisingly the subject of infringements came up, and how much disruption they can cause; the margins to which Heathrow Approach works are very tight. Drones can also cause problems, and there are around 6 reports per week. Deliberate drone operations near airports are illegal, and we were told that at least one has resulted in the perpetrator being arrested and eventually jailed. To emphasise the density of inbound movements in the south east, we were then treated to another brilliant video, this time of the daily flight movements into the London airports; with 6 runways there are around 3000 movements, but despite that over 98% experience no ATC-related delay.

Peter also outlined a number of recent technological initiatives which are being developed to assist in managing this increase in complexity and traffic numbers, some of which were explained further on the fascinating tour which followed.

This very informative tour of the control centre was led by Brian Wheeler who, like Roger Marsh, is also a deputy general manager. The control centre comprises two main areas, Area Control, and Terminal Control, plus an RAF Unit, and the D&D (Distress and Diversion) cell. Clearly, this is a permanently 'live' area, so we were split into even smaller groups, to reduce noise levels on our walk round.

One imminent technological advance at Swanwick is the migration from using paper strips representing each aircraft under control over to the electronic flight progress strip, ExCDS (Extended Computer Display System). This will be

brought in over the period from November through to June 2018, but of course work cannot just stop while the changeover takes place, which makes it a complex operation.

Each area within the control centre is again subdivided into sectors, and each sector has a tactical controller taking care of direct and immediate control and communications, and a planner, who is responsible for airspace capacity management (ACM) forward viewing and planning. Their remit is to try and smooth out the peaks and troughs in the day using, for example, the Traffic Load Prediction Device, which is a graphical depiction of the expected load, based on global flight plan models, and which we were shown during the tour. They also utilise information on the jet stream in their planning; as many of you will know, the most efficient Atlantic tracks both west and eastbound vary depending upon its position and strength.

An integral part of effective forward planning is the project known as LAMP (the London Airspace Management Programme), the first phase of which went live in February 2016, and which is due for full roll out by 2023. This uses technological and modelling developments to improve flight planning and thus efficiency, saving fuel, reducing CO2 emissions, noise and time in the hold. Mechanisms which can be employed include, for example, climbing to higher altitudes more quickly, or throttling back over the Atlantic to delay arrival, specific measures available being identified by the sophisticated modelling employed.

One particularly interesting change is now in operation at Heathrow - Time Based Separation. It was jointly

developed by NATS and Leidos (formerly Lockheed-Martin), and is a global first. Another technology-enabled and computer driven system, the separation between arrivals is adjusted to maintain the time 'equivalent' to the distance separation required in a headwind of 5-7 knots, safely reducing the approach separation in strong headwind conditions and allowing more efficient runway use. On our tour, we were shown the computer output demonstrating the difference this actually made to the separation between aircraft on approach to Heathrow, by toggling between time and distance separation. The underlying principle is based on wake vortex measurement data of more than 150,000 Heathrow flights across all aircraft types which use the airport, and which shows that as the headwind component increases, the wake vortex decreases at a faster rate.

Interestingly, despite the vital work and fascinating technology within NATS which we saw, we were told that recruitment of suitable trainees is currently quite difficult, perhaps because of increased opportunities in other parts of the world, and that the young people typically applying are generally less aviation aware than they might have been in the past, seeing the world of aviation more as a career opportunity rather than a passion.

Following our tour, we returned to reception to meet our afternoon colleagues, and after the usual group photograph, were all shown to the restaurant, where the menu was very varied. This writer had no complaints on quality either. There was plenty to talk about over lunch before thanking our hosts and taking our leave.



The Future of UK Airfields - a RAeS symposium

Industry-wide consensus on need for protective action

By Liveryman (and CEO of the LAA) Steve Slater

It is often said that if you want ten different opinions on any subject, you put nine pilots in a room. Not only are you guaranteed that each will have his or her own opinion, by the time the discussions have finished, at least one will have changed their mind!

However, I am delighted to report that the conference on The Future of UK Airfields held at the Royal Aeronautical Society on 24th October, bucked that trend. It brought together individuals from across UK aviation from cabinet ministers and MPs, to air transport and airfield operators, pilots, engineers and administrators, with a particular emphasis on the oft-overlooked General Aviation sector. The over-riding message from a day of high-powered and informative presentations is the clear importance and commitment of all areas of aviation to work together to ensure that the nation's network of airfields, large and small, is maintained and developed, despite the current backdrop of pressures in both property acquisition for housing and the reduced number of operational licensed airfields.

The day started with an introduction by conference chairman Laurie Price FRAeS, whose own c.v. contains amongst other things, a prime role in reducing unnecessary CAA regulation as the chair of the Government appointed panel that drove forward the GA Red Tape Challenge. The first main speaker was the man who created that initiative, Grant Shapps MP and pilot, who may have courted recent controversy in Parliament, but remains a passionate and powerful advocate for the aviation industry in the UK.

Shapps' address covered a lot of ground, starting with his own constituency where he commented "Welwyn Hatfield has been responsible for some of the most remarkable aviation achievements. From the Mosquito, then the world's fastest plane, to the development of the globe's

first jet airliner the Comet, our area has contributed towards aviation in a manner that few other places can boast".

Today though, Shapps drew attention to the fact that the only thing carrying the name Comet is a local bus service and there is not one operational airfield in the immediate area. Shapps did, though, offer good news in his work to develop greater interest in aviation within the House of Commons. He pointed out that the All-Party Parliamentary Aviation Group, launched earlier this year, now has 70 members from across all areas of politics. Many organisations including the Air Pilots are already contributing advice, offering an exciting new opportunity for direct advocacy to decision makers.

The next speaker, Lord Callanan*, Aviation Minister at the Department of Transport, recognised the value of General Aviation, as well as that of Commercial Air Transport. He pointed to the 2015 research commissioned by the DfT which demonstrates that the GA sector generates in excess of £3 billion for the UK economy each year. He also announced the imminent appointment of an "Airfields Champion" to work with the DfT to focus departmental attention on airfields that are at risk due to inappropriate development. Watch this space.

Personally, I was honoured, wearing my 'hat' as CEO of the Light Aircraft Association, to be invited to join a number of sister organisations in reminding the audience of the scale of the GA sector, and that not all aviation is 'heavy metal'. In fact, while CAT sector operates about 900 aircraft and uses 25 airports, the GA fleet exceeds 21,000 aircraft, including helicopters, gliders, microlights and balloons, flown by more than 32,000 pilots in activities including emergency and medical services, business travel, pilot training for future airline recruitment, as well as sport flying. They use around 140 aerodromes licensed by

the CAA and between 400 and 500 unlicensed flying sites.

Pete Stratten, CEO of the British Gliding Association talked of the challenges posed to sport flying by the commercial weight behind property developers, as well as the CAA's failure to control properly the unfettered, unmanaged and frequently unnecessary, expansion of controlled airspace. Pauline Vahey, representing the UK Aircraft Owners and Pilots Association, spoke on how the wide range of 'alphabet organisations' representing individual GA sectors is committed to working together to speak with a more unified voice, while Charles Henry of the General Aviation Awareness Council demonstrated just such an approach; with 16 different organisations, including the LAA, BGA and AOPA working together to present airfield planning guidance both at a local level and up to Ministerial level in the Department of Communities and Local Government, which handles planning strategy issues.

Perhaps some of this advocacy is already bearing fruit. At the conference were two different consortia which are presenting plans to Welwyn and Hatfield Council (in Grant Shapp's own constituency) for the prospective reopening of the once-highly popular Panshanger aerodrome; whilst Raoul Witherall of FlyPlymouth spoke of his organisation's work in developing a business case for the reopening and development of Plymouth Airport; it is still owned by the local authority but was closed and 'mothballed' by the leaseholders, an aggressive property development company, in 2011.

Most notably, Witherall is not an aviation enthusiast, but a successful businessman. His approach in developing a clear, long-term business strategy based on developing the city's currently severely restricted transportation links, has proved critical to the airfield's future. Since the

airport's closure at least three major international businesses have moved their investments away from Plymouth, with the lack of connectivity being a major factor in their decisions.

Discussions also focused on how important to business it is to maintain both a network of airfields across the UK. 96% of city pairs served by general and business aviation flights have no scheduled flight connections. Within general aviation too, airfield diversity is equally important. A larger regional airport may host business jets, but may not encourage light aircraft or flying training, while smaller aerodromes, which cannot handle larger business aircraft, contribute equally strongly to regional connectivity, but also in terms of local amenity, offering a greater diversity of aviation activity, including flying training and access to sport aviation.

That diversity was also discussed by John Haffenden, an aviation consultant and former manager of London Brighton (Shoreham) Airport, who highlighted the need for wider income streams for airports, including mixed use business developments taking advantage of the connectivity offered, and raising the level (and income) of the humble aerodrome café to make it both a profit-centre, and a valuable social amenity to encourage yet more visitors to the airfield and into closer contact with aviation.

Diversity remained the theme with Dave Stanbridge MRAeS speaking of his company, Swift Aircraft, and their plans to develop a new British light aircraft at the former RAF Coltishall in Norfolk. The company plans to take advantage of the 3km long runway of the former Lightning and Jaguar base for flight testing of their new design, as well as

working alongside co-residents of the associated development park on the airfield to develop their other core business in designing start-of-the-art wind turbines.

While hardly needing runways for their own activities, Philip Tarry, director of remote aerial vehicle developer Halo Industries, looked ahead to the greater integration of 'drone' activities into those of future airport operations and the specific training operations which may result, possibly providing an added income stream to aid sustainability. Meanwhile Steve Pozerskis, a former gliding scholarship winner and active pilot as well as a senior executive of property consultancy Bruton Knowles, amalgamated his knowledge in both areas to offer ideas on how smaller airfields in particular can be developed to offer a financially sustainable longer-term future with mixed use development, rather than just a short-term 'fast buck' of housing development with loss of the airfield resource.

One parallel which Steve raised was between many smaller airfields and golf courses, which have an aging and often gently declining membership, are asset-rich in terms of land, but cash poor. (Sound familiar?). He discussed the planning concept of 'Enabling Development'; initially created to safeguard historic properties in large grounds, but equally capable of allowing planning on the periphery of an airfield, unlocking funds to allow more attractive facilities to be developed in the core site.

After a series of 'workshop' exercises, to sharpen post-luncheon wits, the final address of the day was given by Andy Kirby. His official title is Secondary Legislation Manager at the Department for Transport, but he is known to many as

a prime point of contact between the Department and the CAA, in particular for General Aviation.

Kirby reinforced his Minister's recognition of the value of aviation and airfields and the value of maintaining a strategic network of airfields across the UK. Andy also confirmed that we can look out in the future for further GA network research and 'thematic engagement' such as round table events. Rest assured the Air Pilots will be a part of them, working to continue to advocate members' interests.

**Editor's note: Having held the post for only four months, Lord Callanan left the Department the week after this symposium; his replacement is Baroness Sugg. One hopes the Department's commitment to General Aviation remains the same.*

By the Editor

One of the many UK airfields currently under threat of redevelopment for housing is Redhill. I recently dropped in (by car) merely to have lunch and view the level of activity. I was pleasantly surprised on both counts. The local helimed operation was busy; the local police helicopter flew in and out; flying training and other GA activity was plentiful. There must have been around fifty fellow diners enjoying the excellent cuisine and facilities of the aerodrome's café. This on a mediocre Autumn midweek day.

A long list of tenants at Redhill



A busy café





Panshanger showing the surrounding housing development from previous encroachment



By the Editor

Panshanger aerodrome was forced to close just over three years ago in September 2014. However it is now the subject of a vigorous revival attempt by the local community, named Project Phoenix.

It was home to the North London Flying School, whose just over 15,000 members made it one of the most popular flying schools in the

country. However, the airfield was already well embedded with the local community, with many events such as the Panshanger Revival Day, an annual fireworks event and

Young Aviator Days that inspired old and young. It was noted as a boost to the local economy, and was used by apprentices from the University of Hertfordshire's engineering faculty.

As a result of local pressure, space has now been allocated for an aerodrome in the local plan due for review by the Planning Inspectorate. However, current proposals do not appear to indicate that the council and developer are committed to provide a sustainable airfield for the community.



By popular request (the Editor can assure you his arm was heavily twisted on this), this picture is included - upholding the Company's name in this year's Lord Mayor's Show, accompanied by Past Master Chris Ford, and Warden John Towell.

The procession was also accompanied by 5 camels (with riders, naturally). If you have never witnessed this extraordinary annual event, it is well worth seeing.

RAF Odiham Families Day Fly-in 2017

By Assistant John Denyer

Kate and I were fortunate enough to get through the ballot for aircraft wishing to fly-in to RAF Odiham families' day on 24 August. We had chosen to bring the Chipmunk from the Farnborough Aero Club. A mere 7 nm and 5 minutes flying time away, we were almost certainly the shortest inbound flight.

Having lived within 6 miles of Odiham for most of the last 40 years, and flown Chipmunks from Farnborough for 34 of them, it was great to at last land myself at the airfield. I have driven past it, overflowed it, cycled round it, flown in flight trials from it, and occasionally got frustrated with it over their low level night-flying in the early hours!

Once we had booked in we grabbed a coffee in the 27 Sqn crew room (27 Sqn looked after the visiting pilots particularly well throughout the day) we

set off to explore the sights. As well as the usual entertainments, funfair, stalls, etc common to any families' day, there was an impressive collection of visiting aircraft. These included Piper Cubs, Austers and Chipmunks, a Pitts Special, Isaacs Spitfire and a trio of Gazelle Helicopters to name a few. Aircraft that stood out for me were the beautiful Hornet Moth, Beech 18, and Dragonfly. Other more unusual types were the Helio Courier, Fairchild Argus and Sia Marchetti.

The afternoon flying display included a Folland Gnat, Typhoon, Pitts, Scout, Gazelle and Wasp helicopters, the BBMF's Griffon-engined Spitfire, Tutor, Pitts Special, and of course a Chinook. As well as the display flying, Chinooks and Lynx helicopters were busy giving joyrides to families throughout the day, treating them to what looked like some

quite sporty tactical departures and approaches!

At 1715 the display was over and it was time to depart. Somehow, I managed to end up first in the long queue of departing aircraft, and once I had decoded the RAF air traffic jargon to "Follow the hedgehog" (i.e. the follow-me vehicle) we led a growing line of departing aircraft. As I turned left after take-off for the short flight back to Farnborough, Kate looked over her shoulder and counted 18 aircraft holding for departure behind us. When we drove home past Odiham later having put the Chipmunk to bed, the stragglers were still leaving! So, a great day out, and a real privilege to be able to visit this important and busy local RAF base.



Visit to Tangmere Military Aviation Museum & Boulton Paul Flight Academy Monday 25th September 2017

By Liveryman Ron Weidner

A group of sixteen Air Pilots and their guests gathered, rather appropriately, in the NAAFI Tea Rooms at the Tangmere Military Aviation Museum near Chichester, West Sussex, prior to the first of two visits that members were to make that day, organised by Past Master Chris Ford.

With the guided tour of the museum due to begin at 1030, his advance notice that the booking list for the limited number of available slots on the Lightning F3 simulator opened at 1000, had the desired effect of ensuring the prompt attendance of visiting members!

We were welcomed to the museum by two of its volunteers, Trevor and Mike, who gave us a brief introductory talk about the history of RAF Tangmere, before our guided tour around the many aircraft, static displays, and wartime memorabilia on display.

Construction of the airfield started in 1917 - too late for the First World War, but Tangmere rose to prominence in the inter-war years, in part at least due to the formation flying displays provided by its resident squadrons at air shows throughout the UK and Europe.

Entertaining as the displays by Gamecocks, Siskins and then later Hawker Furys must have been, it is fortunate that these biplanes had been replaced by Hurricanes in time for the Battle of Britain in which the station's

Hurricane squadrons, now supplemented by Blenheim night-fighters, were to play such an important part.

As a mark of the intensity of air operations around this time, Tangmere squadrons were credited with a total of 187 enemy aircraft destroyed, 87 probables and 107 damaged in August 1940 alone. With the Battle of Britain over, the station now acquired the Spitfires; the man appointed in March 1941 to command the first Spitfire wing there was one Douglas Bader, at least until he was shot down in August 1941.

Tangmere was home to many other aircraft during the later war years, including the Lysanders operating night flights in support of the SOE into occupied France, and the Typhoons employed on strafing and bombing missions on targets of opportunity.

After the war, Tangmere was the base for the RAF High Speed Flight. On 7th September 1946 Group Captain Teddy Donaldson set a new World Airspeed Record of 616 mph in a Meteor IV, and Tangmere was also the base when Hawker's Chief Test Pilot, Neville Duke, established a new record of 727 mph in a Hunter exactly seven years later.

However, with the withdrawal of Fighter Command's last Hunter squadron in June 1958, the writing was on the wall for Tangmere and the station finally closed in October 1970.



"If only I had been born 30 (or is that 20!) years earlier" – Past Master Chris Ford

The museum has a fascinating selection of aircraft on display, from a replica of K5054 (the Vickers Supermarine Type 300, aka the first prototype Spitfire), along with a Mk 1 Hurricane, Meteor F4, and English Electric Lightning. Completing the jet stable are a Harrier, Sea Harrier, Sea Vixen, Sea Vampire and a Phantom.

Last, but by no means least, there are two Hawker Hunters on display, one of which, an F5, was seen being admired with great nostalgia by Upper Freeman David Simmonds who flew Hunters out of Tangmere during his RAF service.

The Lightning simulator, as expected, proved extremely popular, and our thanks must go to the volunteer instructor, David, who cheerfully took visitor after visitor on a quick circuit in the simulator.

As well as the aircraft displays, there are many fascinating and varied displays and vignettes of service and war life, with tributes to the SOE, ATA, Fleet Air Arm,

Tangmere's Hunter provoked nostalgia for some



RR232 – Boulton Paul's gorgeous Mk IX Spitfire





Boulton's Chippie



The Harvard

USAAF, and Archie McIndoe, that could have kept us interested all day; however there was a second visit to attend and so, after thanking our hosts, Company Members made their way to Goodwood airfield.

On arrival at Goodwood's Boulton Flight Academy, we were welcomed by Charles Osborne, Director of Sales and Marketing, accompanied by MD & Chief Pilot Matt Jones, and Director of Operations Tim Granshaw. After an excellent finger buffet lunch in their briefing room we were briefed about Boulton and their operations.

Based at Goodwood's Hangar 8, it is the first organisation to be approved by the UK Civil Aviation Authority to conduct passenger flights in a Spitfire; its two TR9 two-seat Spitfires operate on weekdays between April and November. In addition, the organisation can also provide a Spitfire, Mustang or Yak-3 for fly-pasts and air shows.

The passenger flights operate mainly from Goodwood, with Duxford used on occasion. However, the Academy also takes its aircraft on tour for a couple of weeks each year, and operates passenger flights out of Exeter and Cumbernauld in an effort to reach aviation fans away from the South of England.

For those with deeper pockets, a formation flight with another Spitfire, a Mk IX single-seater, RR232, can be arranged, or even a fighter appreciation day with both TR9 Spitfires (SM520 and PV202) scrambling to intercept an inbound ME109 Buchon.

Perhaps most interestingly, BFA also provides a full Spitfire conversion course, ground school and flying training, up to

solo standard; although for most of us, unless we win the lottery, this will have to remain a cherished pipe dream. If you do win the lottery, not only can BFA provide the conversion course, they can help you buy, manage and maintain your own aircraft!

The roster of BFA pilots and instructors, as you might expect, contains some highly experienced warbird pilots and some very familiar names, including at least one Past Master who is often to be found in a ME109 on summer weekends. After the briefing, it was into the immaculate BFA hangar and a chance for a close up look at these iconic aircraft. There were no P-51 Mustangs in the hangar on the day of our visit, as they were still at Duxford following an air show the previous Saturday, but there was a Chipmunk and a Harvard, both used in training roles by BFA.

However all eyes were drawn to the two Spitfires present. The two-seat TR9 Spitfire SM520 owned by BFA, was

present, alongside a privately owned, single-seat Mk IX Spitfire (RR232).

After admiring both aircraft at length from the outside, and having taken great care to empty our pockets of any loose objects, Matt Jones was kind enough to allow members to sit in the cockpit of RR232.

This was a first for me and the highlight of my day. Sat in the cockpit of that Spitfire, with the canopy closed, my admiration rose for all those young men, who in the Summer of 1940 also climbed into a Spitfire for the first time.

All too soon, it was time to climb out of RR232 - with more difficulty and less elegance than I would have wished - and make way for another member. This was the end of our enthralling visit, and after the customary thanks to our hosts, we dispersed.

It was probably just a coincidence, but on the way home I stopped and bought a lottery ticket!

Alan Jackson believes the Spitfire fits quite well....

