



October 2023 ISSUE 59

# AIR PILOT



**INSIDE**  
BBMF PROFILED  
SCHOOLS GLIDING  
CENTENARY OF THE WREN  
THE MASTER'S TOUR PART I





## THE HONOURABLE COMPANY OF AIR PILOTS

incorporating Air Navigators

### PATRON:

His Majesty The King

### MASTER:

Capt Jonathan P Legat

### CLERK:

Paul J Tacon BA FCIS

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

### PUBLISHED BY:

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The final copy date for the December issue is **Monday 30<sup>th</sup> October 2023**

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### PRINTED BY:

Printovation Ltd 01494 478870

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# DIARY



## Applications for Visits and Events

Details and application forms for Company events and visits are now available only online – either on the website or via links in the electronic newsletter and events bulletins.

## OCTOBER 2023

3 <sup>rd</sup>	ACEC	APH
7/8 <sup>th</sup>	Visit, Italian AF	Gioia del Colle
10 <sup>th</sup>	APFC fly-in	Oaksey Park
11 <sup>th</sup>	GP&F	APH
11 <sup>th</sup>	New Members Briefing	APH
11 <sup>th</sup>	Visit	English National Opera
15 <sup>th</sup>	APFC Peter Davis lunch	White Waltham
16-17 <sup>th</sup>	Visit	RAF Benson
22 <sup>nd</sup>	APFC season-end lunch	White Waltham
26 <sup>th</sup>	T&A	Guildhall

## NOVEMBER 2023

4 <sup>th</sup>	Promotions Team	Pilot Careers Live, Heathrow
10 <sup>th</sup>	Promotions Team	RAeS Careers fair, London
16 <sup>th</sup>	GP&F	APH
16 <sup>th</sup>	Court	Cutlers' Hall
21 <sup>st</sup>	APBF	APH

## DECEMBER 2023

6 <sup>th</sup>	APT/AST	APH
7 <sup>th</sup>	GP&F	APH
14 <sup>th</sup>	Carol Service	St Michael, Cornhill
14 <sup>th</sup>	Supper	TBC

**Cover photos:** Cover photos: Avro Lancaster of the Battle of Britain Memorial Flight (John Dibbs); Schools gliding at Dunstable (M Fopp)

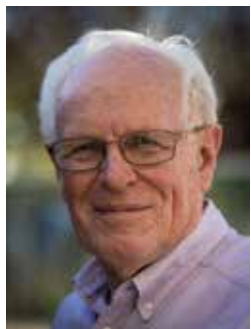
## Guidelines for submissions to Air Pilot

Please submit contributions as follows:

- Text in word document, including your name below the title of the piece;
- Photos as separate attachments, not embedded in emails;
- All images to be sent as jpeg files with a file size of at least 2MB;
- Attachments totalling more than 15MB to be sent via WeTransfer only.



# A MESSAGE FROM YOUR EDITOR...



An important aspect of the Air Pilots' role as a modern working Livery Company rooted within a dynamic and growing aviation sector is its association with its Affiliated Units which – including those of the overseas regions – are some 30 strong. *Air Pilot* is currently embarked on a mission to profile each of these units, and

to report regularly on their activities and achievements through its news pages.

The strength and diversity of the Affiliated Units programme is reflected in the acceptance of the latest unit to join the scheme – No 13 Squadron RAF – and that Squadron in turn reflects the broadening scope and interests of the Company, as it operates the General Atomics MQ-9A Reaper remotely piloted air system (RPAS). The pilots of these machines operate in a vastly different environment from that of the cockpit of a conventional aircraft, in that these aircraft can be taking off, operating, landing and being maintained thousands of miles from where the pilot sits. It is also a very different environment from that involved with the visual line-of-sight (VLOS) or the limited beyond visual line-of-sight (BVLOS) operations (and the more advanced automated and autonomous operations) of the developing unmanned air vehicle (UAV) markets in the UK and elsewhere.

Unlike civilian UAVs delivering medical supplies or parcels – or, in a much-trumpetted future scenario, passengers in autonomous “flying taxis” - the Reaper and its scheduled Protector replacement are large aircraft capable of operating in the same airspace as their manned cousins. (They can operate at altitudes of up to 50,000ft, and while the Reaper has a range of 1,000 nautical miles, its Protector replacement will have a range of six times that.) The pilots of such craft must perforce practise the levels of airmanship and situational awareness expected of their peers operating conventional aircraft, but without many of the all-round visual cues and the seat-of-the-pants feedback enjoyed by the latter.

That the Company is embracing this new breed of pilots (and, through accepting Affiliate status, those pilots are embracing the Company) is a sign of its openness to new technologies and operating practices. The interaction between the pilots of RPAS and those of conventional aircraft can only improve the skills, performance and knowledge of both, and underline the relevance of the Company to the modern age.

*Allan Winn - Editor*

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# NEWS ROUNDUP



## TROPHIES AND AWARDS 2023

The following trophies and awards will be presented at the Company's Trophies & Awards Banquet at the Guildhall, London, on Thursday 26th October. Full details of the recipients and their achievements will be published in the December issue of *Air Pilot*.

### Lifetime Contribution to the Aerospace Industry

The Award of Honour: *Royal Air Force Battle of Britain Memorial Flight*

### For Outstanding Courage or Devotion to Duty in the Air

The Master's Commendation: *Captain Charles Rorrison AAC*

The Master's Medal: *Flight Lieutenant Matthew Pilbeam RAF*

The Hugh Gordon-Burge Memorial Award: *David Barrell*

The Prince Philip Helicopter Rescue Award: *Crew of Rescue 924*

The Barry Marsden Memorial Award: *Careflight*

### Flight Operations

The Grand Master's Medal: *First Lieutenant Andrew H Merkley USAF*

The Brackley Memorial Trophy: *Jason Sandever*

The Johnston Memorial Trophy: *Captain John Roberts*

The Sword of Honour: *Francis Donaldson FRAeS*

The Myles Bickerton Trophy: *Alicia Nicole Hempleman-Adams*

The Hanna Trophy: *Paul Stone*

### Flight Test

The Derry and Richards Memorial Medal: *Flight Lieutenant Aaron How RAAF*

### Safety and Survival

The Cumberbatch Trophy: *Lieutenant Craig Allen RN*

### Training

The Glover Trophy: *Lieutenant Patrick Richardson RN*

The Central Flying School Trophy: *RAF Central Gliding School Instructor Training Team*

The Pike Trophy: *Anthony Cooke*

John Landymore Trophy: *Mollie Wadsworth*

### For Services to the Company

The Sir Alan Cobham Memorial Award: *Reverend Dr Richard Waugh*

### Regional Awards

The Grand Master's Australian Medal: *Qantas Group Pilot Academy*

The Australian Bi-Centennial Award: *Ian Honnery*

The Captain John Ashton Memorial Award: *Captain Mark Tatton*

The Jean Batten Memorial Award: *Wing Commander Gordon Ragg AFC RNZAF* □

## FLYING CLUB GOES OUT AND ABOUT

The Air Pilots Flying Club has had a busy summer, with recent fly-ins to Compton Abbas, Sandown IoW, Popham and a successful, if rather cloudy, summer Barbecue at White Waltham.



Jodel D140  
at Popham  
(John Denyer)



dH Tiger Moth  
and Chipmunk at  
Compton Abbas  
(Tony Clinch)



A good crowd at the summer barbecue (Paul Heaver)



## COMPANY VISIT: THE RED ARROWS

By Freeman Ian Davies

The weather at daybreak on 8<sup>th</sup> September was not promising, with widespread mist and low wind casting doubt on the prospects for a mid-morning flight in Lincolnshire. We were greeted with such enthusiasm by Doug Smith, Team Leader for the Red Arrows, that we knew the visit would be as exciting as we had expected.

It began with the pre-brief, relegated to the blue seats at



*Visits supremo David Curgenvin takes control* the rear, whilst Red One, Tom Bould, rattled through the brief for the morning. Fortunately, we had been warned by OC Wg Cdr Adam Collins that this would involve a high level of co-ordinated abbreviations and command responses which we were not expected to understand. Each team member - referred to by number not name - identified their own areas for improvement in parts of the display sequence from the most recent sorties, ever striving for improvement. We were told that there has never been a perfect display in the 59 years the team has displayed, such is its quest for the highest standards.

As Red One called out various manoeuvres (Vixen, Apollo, Python, Infinity Roll) individual team members responded with their number and remarks ("Lightning Go", "Four", "Five", "Smoke off" etc), whilst Red One appeared to absorb multiple incoming audio streams simultaneously.

We learned the importance of flying by ear, not eye, co-ordinated with individual muscle memory. The team members learn the cadence of the commands, and on which syllable of the command they should initiate their control input, which differs by their position in the formation to maintain station.

When the team splits, the front section comprising Reds One to Five is called Enid (after Enid Blyton's The Famous Five) and the rear section is called Hanna, a name chosen by the pilots to honour one of the team's founding pilots and early leaders, Ray Hanna.

Red 10 is the team supervisor who maintains contact with Red One and provides the public commentary during the display. If he is not in position at the display location, the display cannot proceed, so he must often travel ahead by support helicopter when multiple displays are arranged for the same day.



*Reds on parade*

Each autumn three new team members are selected for their three-year tour. The pre-application requirements include 1,500 flying hours on fast jets, and operational experience. Those shortlisted attend a week of assessment, which includes flying skills, social engagement and peer assessment. The soft power of projecting Britain's role in the world is enhanced by a co-ordinated programme of trade and embassy engagements in which pilots are fully involved as ambassadors.

At 11:00 we received the welcome weather update which



*Air Pilots with their hosts*

indicated that slipping the take-off slot by another 45min would enable the display to proceed, prior to the team having to depart for Southport at 16:00 for the weekend public display.

After the familiar display, we were treated to a fascinating debrief with video analysis, and a cacophony of commentary from each team member calling out whether they were "shallow, deep, wide etc", all in pursuit of improving future performance. Interestingly, the team has worked with other high-performance leadership teams to assess how it might improve teamwork, an example being whether members should use names (as in operating theatres) rather than numbers in radio calls.

After a light lunch, we headed to the hangar which was unusually completely empty of flying craft. Each flying hour requires 26.1h of engineering support to maintain the BAe Hawk T1. The programme is to maintain these aircraft until at least 2030 - the current-production glass-cockpit Hawk T2 is deemed unsuitable for aerobatics because of the additional weight of equipment in its nose, so it will not replace the T1 display aircraft. □

## PROTOCOL AND ETIQUETTE AT LIVERY FUNCTIONS

The City of London Livery Committee has released an updated guide to etiquette for Livery Company functions, saying: "This advice is not about right and wrong, but about how City of London Livery Companies choose to behave when they dine, in good fellowship and with mutual respect between all present. Please observe these practices and accept them in the spirit intended." Some of the more salient points include:

### DRESS CODE

"Dinner jacket" or "Black Tie" means a black dinner suit and black bow tie with white dress shirt for men... Appropriate "Black Tie" wear for ladies includes midi, calf-length or long dresses, evening suits comprising a jacket with dress, trousers or a skirt, or smart trousers or mid-length skirt with a jacket or sleeved top in an evening fabric.

Other than for specially-themed evenings, or at the specific wish of the host, the following are unacceptable for evening wear at Livery functions:

- Gentlemen: denim, leather, coloured jackets/suits/waistcoats/ties, "bootlace" ties, brown shoes.

- Ladies: jumpsuits, leggings, denim, leather, dresses or skirts above knee length.

### COMFORT BREAKS AND MOVING AROUND

Strictly speaking no one should leave the table for any reason until after the loyal toast, preferably not at all. The most convenient and least disruptive time to leave the table is when coffee is being served. Guests who do so should leave and return to their seat discreetly and without disturbing other guests. It is considered most impolite to leave the table during the speeches.

The traditional reception held before each formal dinner, and the frequently occurring late bar or 'Stirrup Cup' that occurs after the Master rises, present the perfect time to greet friends and meet new guests and acquaintances. Both these opportunities should obviate the need for guests to leave the table during dinner to chat with others. This practice is frowned upon as it is inconsiderate to other guests and disrupts service. □

The full guidance can be found at:

<https://liverycommittee.org/about/livery-companies-and-guilds/protocol-etiquette-and-dress-codes/>

# GAZETTE

## APPROVED BY THE COURT 14 SEPTEMBER 2023

### ADMISSIONS

#### As Upper Freeman

Michael William ALLEN  
Michael William CHAMBERS  
Christian CHARALAMBOUS  
William Monroe GOTTEN (HK)  
Philip HARDISTY  
Alexander James HARRIS  
Joseph MORRIS  
Richard NEEDHAM  
Peter ROUND  
Jonathan Paul STONER (OS)  
Captain Mark TATTON (AUS)

#### As Freeman

Edward Paul ALLISON-WRIGHT (OS)  
Peter Murray AUSTIN  
Samuel HOOD  
Stephen Esmond KIMBELL  
Luke Joseph SHARPLES (NA)

#### As Associate

Rowan Andrew James BARKER  
Paul DUXBURY

Alexander HOROWITZ  
Thomas Oliver MUMFORD  
Amir SAID  
Oscar James SCOTT (AUS)  
Lukasz Kacper TORZEWSKI  
Rose WALTERS  
Lloyd Maxwell Summer WILLIS (NZ)

### ACKNOWLEDGED BY THE COURT 14 September 2023

#### REGRADING

##### To Livery

Dhamseth PALLAWELA  
Adrian YOUNG (AUS)

#### As Upper Freeman

Adrian BERRIDGE  
William KAY (AUS)  
Hal NEWBERRY

#### As Freeman

Christopher BELFIELD  
Georgina MILLINGTON

#### RESIGNATIONS

Richard ATKINSON

John BASHAM (HK)  
James BERRY  
Peter BISSELL (HK)  
Jason CAVE (HK)  
Billy CHAN (HK)  
Chantelle CRESPIAN (AUS)  
Timothy COSTLEY (NZ)  
Ian COUSLAND (HK)  
Thomas DEAN  
Annabelle DOCKETT  
Jeremy DOUGLAS (HK)  
Christopher DREWERY (HK)  
Richard HASLER  
Sebastian MENDEZ (HK)  
Jacob MULLER  
Philip MURPHY (HK)  
Enrique NIETO WILLIAMS (OS)  
Greg PERILLEUX (HK)  
Harry PETROPOULOS (HK)  
Robin PICK  
Roger PIERCE (NA)  
Dany POITRAS (NA)

Anthony POOLEY  
Matthew POPPLESTONE  
Rob PRANGE (HK)  
Laura PRESTON (HK)  
Peter RHODES (NZ)  
Jamie ROWLANDS (HK)  
Tyrell SIMPSON (HK)  
Nigel TOWLER  
Josh TUPPEN (HK)  
Perrin TURNER (NZ)  
Earle VANCE (NA)  
Stephen WALLACE (HK)

#### DECEASED

Trevor BAILEY







# THE MASTER'S MESSAGE

*By The Master, Capt Jonathan Legat*

You may recall from the August edition of *Air Pilot* that I held 'The Master's Garden Party' on 1<sup>st</sup> July at Popham Airfield in Hampshire. It was a fine day, albeit a little windy – what airfield isn't windy! – and thanks to Liveryman David Curgenven's superb organisation we enjoyed a convivial time, to the gentle accompaniment of jazz and the buzz of aircraft flying circuits in the background. Freeman Charles Randall and his son George flew in in their Vans RV-7 whilst Past Master Wally Epton stylishly arrived in a 1936 Morris 8. My thanks go to Mike Pearson, the Airfield Manager at Popham, for allowing us to use the airfield and to Lisa and Lauren who provided the excellent food from the airfield café. Towards the end of the following week we travelled north for the Brigantes Breakfast. Organised each year in the north of England for Liverymen of the City of London

Livery Companies, the event's location alternates year on year to opposite sides of the Pennines. Last year it was held in Blackpool, this year in Harrogate, a beautiful Victorian spa town on the doorstep of the Yorkshire Dales. On the first day, together with IPM Robin Keegan and Eileen, the highlight was afternoon tea in the famous Betty's tea room, opened over 100 years ago by a Swiss baker; scones, jam and clotted cream were accompanied by pots of Betty's own Yorkshire tea.

The Breakfast itself (actually a luncheon) was held in the Royal Hall, a beautiful Grade II-listed performance hall and theatre. Once most guests were seated, current Masters were invited to parade into the hall from the stage. It was well worth the visit, and I recommend it to all Liverymen. The next few days saw me visit the Isle of Wight twice: first on Sunday, a group motorcycle ride around the island,

including past Bembridge and Sandown airfields; and then on Wednesday to Sandown airfield for the Air Pilots Flying Club fly-in, where we enjoyed the delicious freshly made pizzas in the airfield's Island Bistro. (I'm pleased to report my landings are getting better! – see the August edition Master's Message).

During July and August there are few Livery events, but worthy of note is the Air Pilots Summer Supper, which this year was held at Cutlers' Hall, organised once again, and for his final time, by Past Master Chris Ford. As ever it was a splendid and enjoyable evening and I would like

to recognise and thank Chris for the time and effort he has put in to this event over the years. Also, my thanks go to the Cutlers' Beadle, David Hasler, for looking after us magnificently as ever. Another fly-in, this time to Popham on 1<sup>st</sup> August, was well attended. As is so often the case in aviation I could have driven to Popham in less than half the time it took me to



*The well-attended Flying Club fly-in at Popham (John Denyer)*

drive to Blackbushe to pick up the aeroplane, but where is the fun in that? The curved approach to Runway 26 reminds me, just a little bit, of the curved approach to Runway 13 at Kai Tak, happy days!

At the end of the week we were back in the car to drive up to the beautiful Peak District to present certificates to our six Gliding scholarship winners at the Derbyshire and Lancashire Gliding Club, Camphill Airfield. Although rain stopped play for a day or so during the week they managed to fit in plenty of flying. Congratulations to them and all our scholarship winners and my thanks to all the team at the Gliding Club.

Then it was off to North America for the first part of the Master's Tour (see p14).

**Fly well, and happy landings.**

□

# REGIONAL REPORTS



## Regional Report: North America

By North America Region Chairman, Liveryman Simon Lawrence



This summer quarter North American airlines and business aviation had mixed results, with some carriers having record profits for the period while others had losses. The business aviation world saw a slowdown in charter operations, with one large operator declaring bankruptcy. As the summer comes to an end it appears the operational meltdowns of the previous year in the US and Canada were avoided for the most part, with only localized delays and cancellations, mostly due to weather and some staffing issues.

Airlines continue to hire in large numbers in all departments, while the trickle-down effect continues to upset regional airlines, charter, and corporate operators in maintaining staffing levels. From the business perspective it is a difficult situation balancing large sign-on bonuses versus operating costs, but from the aspiring aviation job-seeker's view, it is a great time to be getting into the field. This is another reason it is so important for organisations such as ours to continue to assist showing young people the benefits of careers in aviation. To support those regional youth interested in aviation, the NA Region Board of Directors has recently approved the establishment of the Aerospace Scholarship Foundation Inc to fund aviation scholarships for youth in the North American Region.

The idea that we are running shortages in the aviation business was further highlighted by the recent releases from Boeing of the *Pilot and Technician Outlook 2023-2042* and the Airbus *2023-2042 Global Market Forecast*. Boeing highlights the need for 649,000 new pilots, 690,000 new maintenance technicians and 938,000 new cabin crew over the next 20 years. This is supported by Airbus, which predicts that we will see all these new aviation personnel operating 40,850 new aircraft.

### UNINTENDED CONSEQUENCES

As I mentioned, all this growth makes it a great time for starting up in the aviation world; however, as is often the case, it also brings unintended consequences - and in this case it's for older aviation personnel. When I started in the airline world "a few years ago," airline pilots reached the mandatory retirement age at 60. There were also a few overseas companies that had even earlier retirement age requirements. Over the last few years, we have seen the retirement age move to 65 and, in the USA, we now have

legislation for retirement at 67 waiting for a decision. Years ago, when pilots retired that is usually what they did. There were always a few who would continue in the business by becoming or continuing as flight instructors and a few more might find business jets to fly for a couple of years. As a young airline first officer, I cannot remember flying with any captain who discussed wanting to continue flying for years after the mandatory retirement age. Of course, part of that was probably due to the limited opportunities or the poor compensation that made the job not worth the effort.



*What's the future for the older pilot? (iStock/YakobchukOlena)*

Obviously, today things have changed. Humans are fitter, living longer and for pilots there have never been as many options to stay in the industry, well past the mandatory retirement age, as there are today. Pilot retirees are instructing for major airlines, flying for fractional business jet companies, consulting, and flying for corporate operators. Meanwhile, retired mechanics are working in airline operations and safety positions or fixed base operations and many flight attendants continue to work or move to training positions or outside companies. I have spoken with numerous friends in the aviation industry who constantly receive emails from job recruiters seeking to fill aviation positions on a daily and weekly basis. It's definitely a different world than when I signed on in 1984! For those who want the option, opportunity is definitely knocking in today's aviation world.

### RETIREMENT THANKS

On a side note, my term as Chairman of the Board of the NA Region will be ending near the time of this publication. I would like to publicly thank the NA Region Board of Directors for their support during the last two years, and NA Region member Freeman Belinda Scott who has shared this writing space on numerous issues. □





# Regional Report: Australia

*By Australia Region Chairman, Liveryman Spencer Ferrier*

It is Winter here in Australia. With the exception of far north Queensland, Darwin and other regions above the Tropic line, it is cold, windy and bleak.

With starkly blue skies and bright mornings and evenings, it still remains cold. I wonder about why we feel so cold, as I have certainly seen far sub-zeros in the Northern Hemisphere, but it is a time for hibernation.



*Vast distances mean air services are vital in Australia (Qantas)*

We Australians have had our share of wildfires, so we look with real empathy to our Canadian fellow members who, with some assistance from this country are working at the damage that is occurring across the North. The desperate destruction of the lives and homes on the Hawaiian Island of Maui must leave us all shocked by the speed and ferocity of these out-of-control fires. The misery in Greece is yet another reason for us to feel affinity for those who live in or near natural bushland.

It is the case that Australians hibernate or travel to get away. Some of us travel to the Northern Hemisphere and others to the northern parts of our country. Regrettably, however, even though warm climes can be reached over this immense flat land, very few of our General Aviation population (there are about 13,000 of them) will opt to take a break within Australia – the fleet is quiescent.

I write this note with a few days to run to the official end of winter. There is a stirring in the aviation scene. Advertisements for fly-ins, air shows and air safaris have

been posted in many parts of the country. Probably the best way to see this wide country is to do so by general aviation. There are plenty of companies that will fly to the icons of Ayers Rock, Wave Rock, Cumberland Gorge, and the Burketown Races, and make that trip both interesting and fun – and less expensive than you might think, too.

The distances really justify travelling by air. For example, it is (statute) 994 miles (1,600km) from Adelaide to Brisbane, 595 miles Adelaide to Canberra, 290 miles Canberra to Melbourne and 443 miles Sydney to Melbourne. Compare the 1,444 miles Melbourne to Cairns with 1,315 miles Inverness to Lisbon, or 626 miles London to Monaco, and the case is made.

## INCREASED FATALITIES

Sadly, winter has seen an increase in general aviation fatalities. Some are almost without fault and those unaffected by piloting but who are caught up in the terrible event have years to live in its shadow. The ultralight or lightweight category of aircraft have their part in this melee, which is quite concerning.

We are looking forward to the Master's visit. It is a great time for us members to meet in a convivial atmosphere. We will be holding meetings in Canberra, Brisbane, Adelaide, Sydney and Melbourne and bringing members into the greater world of the Honourable Company.

I particularly thank our New Zealand compatriot Mike Zaytsoff, for his effort to involve Australian Members in his New Zealand webinars. [Liveryman and NZ Region Technical Director Mike Zaytsoff runs a monthly webinar in conjunction with the NZ Society of Air Safety Investigators, NZ and Australian members, as described in *Air Pilot* October 2022 - Ed.]



*NZ Liveryman Mike Zaytsoff's monthly webinars are popular in Australia, too*

They have been a regular monthly event, across a number of interesting subjects

and have made it apparent that whilst the distances between us - even to New Zealand - are great, the common interest of aircraft management and safety is still important and of compelling interest. □



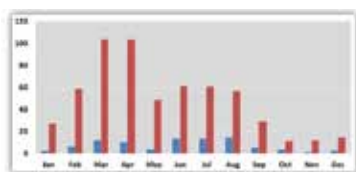


# Regional Report: Hong Kong

*By Hong Kong Region Chairman, Liveryman Valerie Stait*

Hong Kong is currently quiet as people travel abroad for the summer, though we held our AGM at the Hong Kong

Aviation Club with cheese and wine afterwards and got a beer call in at Staunton's, spiritual home of pilots in Hong Kong. We also fitted in a tour of the airport facility of the Hong Kong Observatory, just ahead of typhoon season. We have worked closely with this impressive organisation over the years, and it is an affiliate of the Hong Kong Air Pilots, so it was a great pleasure to arrange our first visit in person for three years.



*Average monthly numbers of pilot reports of significant weathershear (red) and turbulence (blue) at HKIA between 2001 and 2018*

The day started with a briefing on the Observatory's aviation-related work, followed by a visit to the tower. The Observatory has provided a forecasting service since 1937.

There was a pause during World War II, then forecasting resumed in 1947. As well as the Airport Authority and airlines, customers include the Civil Aviation Department, ground handling agents, cargo terminal operators and ramp operators. The Observatory's work helps to keep flying within safe boundaries and increases airline and Air traffic Control efficiency, allowing coordination between adjacent FIRs. Its wider services include wind modelling for the never-ending construction around the airport, evaluating how new buildings may affect runways in differing conditions. Beyond Hong Kong, the Observatory issues advisories and significant weather charts for FIRs that may be affected by weather and covers a large area of Asia from Russia to Singapore.

## TYPHOON MANAGEMENT

A vital aspect of high impact weather during the summer months is typhoon management. IATA data from 2022 cites adverse weather as a contributing factor in 31% of accidents and wind/wind shear/gusty winds and thunderstorms related to 18% of accidents. Since Hong Kong International Airport opened in 1998, about one in 500 flights has reported significant windshear and one in 3,500 has reported significant turbulence. When the forecast has a significant impact on airport operations, the Observatory conducts updates via video or face-to-face. Information is gathered from meteorological agencies worldwide as well as from tropical cyclone

reconnaissance flights. The Observatory collaborates with the Government Flying Service, sending an aircraft up to collect measurements at different altitudes in the tropical cyclone, such as wind direction and speed, temperature, air pressure and humidity. As well as reporting pressure readings from near the sea surface, they provide valuable information for the Observatory to determine the location and intensity of the storm.

The Observatory then holds coordination meetings and special briefings for the entire airport community to ensure that it is well prepared and able to plan strategically up to four weeks ahead. The airport users bring this information into play to decide if flights need to be suspended or rescheduled and if they need to inform passengers in advance. This helps everyone plan and pre-empts overcrowding at the airport.

## TOWER VISIT

Following the briefing, we headed up to the tower where the Observatory occupies an entire level to itself. Two Aeronautical Meteorological Advisers monitor the weather situation closely in an



*Air Pilots enjoy the view from the Tower*

Integrated Airport Centre around the clock. This is backed up by the main facility in Hong Kong city, as the Observatory gets thousands of calls during severe summer weather. They explained that early July is as late as they can arrange a visit. After this, it gets busy as the protective subtropical high-pressure system over the Pacific recedes, allowing cyclones to affect the Hong Kong region until October. In fact, Observatory staff suggested this might happen in the next few days and were spot on when typhoon *Talim* kicked off the season five days later.

The Air Pilots continues to support the outstanding work that the Hong Kong Observatory carries out. We offer a pilot's perspective at various meetings and groups throughout the year such as the Windshear and High-Impact Weather (WHIX) Panel, which consists of multiple aviation stakeholders who regularly review topics such as the windshear and turbulence alert service. Aviation in Hong Kong is a rapidly evolving environment, and the Hong Kong Observatory is committed to developing their world-leading work to keep us well-informed and safer in the skies. □



# REPORT: THE YOUNG AIR PILOTS

*By Freeman Dominic Registe, Young Air Pilots Chairman*

Wary that our perception of aviation intrinsically differs from one person to another, the desire to operate aircraft in the most professional of manners is what unites us all. Encouraging and supporting the best people in to the industry, regardless of background, is also very much a common denominator. The unveiling of funded cadet pilot programmes from airlines such as Air Lingus, British



*Gliding scholars in action at Lasham*

Airways and TUI in recent months echoes this sentiment entirely, and creates an incredibly exciting opportunity for a new industry precedent to be set for years to come. It also strongly indicates a future demand for pilots, which will undoubtedly be a most welcome development for those already committed to the pilot training pipeline. With busy summer flying schedules already significantly wound down at the time of this issue, October typically affords a somewhat welcome respite. The end of the summer months also signifies the end of the Air Pilots scholarship campaign, with the deadline passing for all scholars to have completed their respective training. With a lot to learn in a relatively short period of time, a scholar's summer is both demanding and rewarding. I was fortunate to be able to visit both gliding and PPL scholars during their training and witness this first hand. For many, a Company scholarship facilitates a scholar's first experience of small-aircraft flying, with the rare opportunity to build on this new skillset in quick succession. Regardless of hours flown to date, I think it is safe to say we all remember our first flight vividly. Observing the same moment at airfields across the country is one that most definitely never tires.

## BIG NUMBERS

Perhaps unlike any previous year, what was extraordinary to see was the sheer number of Young Air Pilots and former scholars directly involved in delivering this year's flying programme. From flying instructors, glider tug pilots and operations assistants to DCFI and duty manager, directly overseeing scholarship courses, it was truly a pleasure to touch base in person and see you all in action.

Special thanks must also go to all of the Company members who made time to visit scholars at various locations across the country. Whilst PPL scholars

automatically receive Company associate membership on completing their courses, this is not a prerequisite for gliding scholars, so visits such as these are invaluable to maintaining a longstanding link. The feedback I have received from both scholars and schools on this front confirms



*Warden Denyer presents Cameron Brown with his scholarship certificate*

just that, and without question has encouraged more to become members of the future.

October also signifies final preparations for The Trophies and Awards Banquet, undoubtedly the highlight of the Air Pilots social calendar. Recognising outstanding industry achievement and attracting distinguished aviators from around the world to historic Guildhall, London, it promises to be a spectacular evening. With a record number of Young Air Pilots attending the 2022 banquet, we are already on course to surpass this number this year and I very much look forward to enjoying your company later this month.

With several informal socials planned for later on in the year, and a number of leading airline recruiters also due to be in attendance, the Young Air Pilots social calendar promises to end on a relaxed yet informative note. Wary of busy schedules in the lead up to the busy festive period, rest assured, dates will be confirmed soon. □







# FROM THE DESK OF THE DAA

*By the DAA, PM Nick Goodwyn*

Recently, EASA published its annual safety report, which provides interesting insight and benchmarks for the aviation industry across the member states and, whilst the UK is itself no longer included in the review, it provides a broad perspective on current safety trends. In the review, EASA notes that last year, the world, and air transport, began its journey to recovery after the unprecedented challenges posed by the COVID-19 pandemic and notes that commercial air transport traffic levels have recovered to around 93% of the pre-pandemic levels seen in 2019.

This remarkable resurgence is a testament to the resilience and adaptability of the aviation industry, and underlines that, as people, we still have a strong desire to travel by air, which remains the safest form of transport. Indeed, it reminds us that whenever the industry faces challenge and set back, historically it has always both bounced back rapidly and often grown as a result. EASA notes with satisfaction that there have been no major accidents involving European operators for many years, and the safety record of aviation continues to be exemplary. However, as the Air Pilots continues to advocate for best practice in training and standardisation, for being fit to operate, and for an open and educated debate on the need to blend traditional skills with increased awareness on the perils of ignoring those basic skills at the cost of reliance on automation, operating with reduced flightcrew and good fatigue and health and wellbeing protocols, we must be wary of complacency.

EASA recognises that such performance is the result of the collective efforts of all stakeholders who have embraced safety, leadership and upheld the highest standards of operational excellence. However, it accepts that the absence of major accidents in Europe should not blind it to possible threats, and states that it was fortunate that last summer's difficult operating situation did not lead to increased safety issues. On the global scale, the industry is regrettably still seeing around 12-13 fatal commercial air accidents per year and so must also recognise that the aviation landscape is ever-changing and that new challenges continue to emerge.

Hazards such as cyber-security vulnerabilities, war at the borders of the European Union, the entry of new operators, as well as rapid advancements in technology all demand focused attention. Also, the digital revolution has ushered in new opportunities and challenges alike and the aviation system will have to embrace digitalisation and artificial intelligence responsibly. In the review, EASA says

that it is committed to harnessing the potential of these innovations to further enhance safety, while safeguarding against any potential risks they may bring.

## LARGE AIRCRAFT OPERATIONS

Focusing first on large aeroplane passenger and cargo operations worldwide, the figures show the contribution of EASA member states' operators to the number of global fatal accidents and fatalities. The number of fatal accidents in recent years has stabilised since 2020 and the number of fatal accidents in 2022 is the third-lowest in the decade. For the context of these safety figures, it is to be noted that after two years of severe traffic reductions in 2020 and 2021, since summer 2022 the aviation industry across Europe has experienced a strong recovery in terms of traffic.

Despite the stabilisation in the number of accidents, the number of fatalities in 2022 has increased compared to 2021 and one fatal accident (a runway incursion of a motorcycle) involving an EASA MS operator led to two fatalities in Guinea this year after an accident-free period of five years for European operators. The accident of a Boeing 737-800 on 21<sup>st</sup> March 2022 near Wuzhou in China contributed to three-quarters of the total number of fatalities in large aeroplane passenger and cargo operations worldwide in 2022.

When focussing on the last decade (2013-2022), the fatalities caused by unlawful acts represent a bit less than a quarter of the total number of fatalities, with fortunately an improvement over the last two years since there have been no civil aviation accidents due to unlawful acts during this period.

This observation, in conjunction with the current challenges associated with the developing geopolitical situations with numerous conflict zones worldwide, increasingly focusses concern on security matters that require an integrated risk management approach in order to be adequately mitigated. The world remains a dangerous place and there is increasingly more congested airspace, especially across Europe, as a result of restrictions due to conflict and high-risk zones

## SAFETY RISKS FOR CAT AIRCRAFT

Based on the information from accident reports and from preliminary information where the investigations are ongoing, the fatal accidents between 2018 and 2022 had the following characteristics:

- The most common underlying cause to these accidents is associated to the flight crews'

management of challenging circumstances created by technical failures or poor weather conditions, including heavy rains and thunderstorms, during approach. Safety management continues to emerge as an important factor in preventing accidents;

- Aircraft upset, runway excursion and terrain collision remain as the most common accident outcomes. The most common flight phase for fatal accidents is approach and landing, however accidents occurring en-route contribute to more than half of the total number of fatalities;
- The design of safe and effective human-machine interfaces remains a challenge and, although progress continues to be made in this area, many aircraft continue to operate with older legacy designs that do not take account of lessons learned from previous accidents;
- Cargo accidents continue to be slightly disproportionately represented in fatal accidents, at approximately 30% of the accidents occurring over the past five years.

Looking more closely, the key higher-risk area are:

- Airborne collision includes all occurrences involving actual or potential airborne collisions between aircraft, while both aircraft are airborne, and between aircraft and other airborne objects (excluding birds and wildlife). In 2022 the highest risk contributors were occurrences such as a loss of separation and TCAS resolution advisories cases;
- Collision on runway includes occurrences involving collisions or near-collisions between an aircraft and another object (other aircraft, vehicles, etc.) or person that occurs on a runway of an aerodrome or other pre-designated landing area. It does not include collisions with birds or wildlife;
- Aircraft upset includes an undesired aircraft state characterised by unintentional divergences from parameters normally experienced during operations, which might ultimately lead to an uncontrolled impact with terrain. In 2022 the highest risk-contributing occurrences were: aircraft operating a pleasure flight crashing into the sea; unstable approach and difficulties in controlling the aircraft after missed approach (both pilots making simultaneous inputs to the flight controls); partial electrical failure and control difficulties during approach; and a broken aileron cable requiring abnormal control inputs to keep the aircraft's wings level;
- Runway excursion includes all occurrences involving actual or potential situations when an aircraft leaves the runway or movement area of an aerodrome

or landing surface of any other pre-designated landing area, without getting airborne. In 2022 the highest risk contributors were: occurrences involving the actual runway excursions related to unstable approaches; poor runway surface condition; adverse weather conditions; and hard landings.

## SAFETY RISKS FOR CAT HELICOPTERS

The safety risks for CAT helicopters are derived from accident and serious incident data covering the period 2018-2022 (67 occurrences). The absolute numbers show that airborne collision is the top key risk area in terms of aggregated risk, whereas obstacle collision in flight shows similar risk, both in terms of the numbers of occurrences and aggregated risk. Clearly, this statistic is a strong reminder of the obvious dangers of airborne collision, highlighting the importance of taking the necessary precautions to avoid such a catastrophic event. It serves as a warning to pilots and other aircraft operators to be extra vigilant when flying in the vicinity of other aircraft.

In 2022 a total of three occurrences were attributed to the key risk area of airborne collision, of which one was a fatal accident, and two were serious incidents, one involving a large drone and a



HEMS helicopter, and the other a conflict with a small aeroplane performing non-commercial operations. Terrain collision and aircraft upset form the other main key risk areas for CAT helicopters. Due to the nature of their activity and the conditions they get flown in, such as flying at low altitudes and in challenging weather conditions in order to reach patients in remote or inaccessible areas, CAT helicopters are exposed to a unique set of operational and environmental threats. Other areas of note include incidents and injuries due to turbulence, hoist operations, and ground operators' injuries, particularly persons being injured on the ground from falling loads, or from any part falling from an aircraft in flight.

Overall, does the safety review reveal anything 'new' in terms of accident and incident trends? Maybe not, but it does highlight the importance of working hard to identify and mitigate known risks and avoiding complacency and, as the Air Pilots, advocating the highest standards of focused training to retain core skills and develop knowledge and confidence in emergent automation and technologies. Our strength lies in the expertise of our membership and, through our members, the background work and output of the ITF and technical working groups. □

*Runway incursions remain amongst the most common types of large aircraft accidents (iStock/JurgaR)*



# THE MASTER'S TOUR 2023, PART ONE, NORTH AMERICA

*By The Master, Capt Jonathan Legat*

me: "Did you have a good holiday?" Well, naturally I made all the right noises, but as I said at my installation: "I regard the position of Master as being ambassadorial" and to that end the tour was primarily a business trip albeit a most enjoyable one.

I feel it is important to be able to put faces to names, to renew contacts and to cement the relationships with the various governmental, technical and legislative organisations with which we have built up good relations over the years. Following the Covid-19-caused hiatus, IPM Robin Keegan, as Master last year did a splendid job in refreshing or replacing those contacts and I was pleased to be able to continue along those lines.

Issues raised last year continue to be of concern and I list here some of the topics raised:

- Fitness to Operate
- Training and Standards
- Pilot Careers – Scholarships and Bursaries
- Flightcrew Health and Wellbeing – Peer Support and prevention and detection of misuse of psychoactive substances
- Commercial Air Transport Briefing Notes
- Airspace Modernisation and Integration – EVTOL, Vertical Lift, RPAS
- Environmental Group
- Unmanned Air System Group
- Space Group
- True North - Aviation Heading Reference Transition Action Group (AHTAG)

One of the organisations I particularly wanted to visit this year was the National Transportation Safety Board; its personnel were not available last year due, I believe, to attendance at the Experimental Aircraft Association AirVenture Oshkosh, the annual air show and gathering of aviation enthusiasts held each summer at Wittman

Regional Airport and adjacent Pioneer Airport in Oshkosh, Wisconsin, generally known simply as Oshkosh. Who can blame them? I understand the airshow is well worth the visit. In order to avoid clashing with this airshow I arranged the tour in a different order, starting with:

## BRITISH COLUMBIA

Our daughter very kindly dropped us off at the Winchester Park & Ride where we were picked up by the National Express coach to Heathrow, an easy way to travel to the airport, avoiding stress on the drive and exorbitant parking charges.

We flew with British Airways to Vancouver, an excellent flight on an Airbus A350, my first time on this type, and we were well looked after by the crew. We found our way to our hotel in downtown Vancouver, an area I know reasonably well from my time in Cathay, and spent the next day revisiting familiar areas, although many of my formerly favourite cafes, bistros etc have long gone, replaced by newer modern buildings with less of a village feel to them. I was, however, pleased to find the Gastown Steam Clock and Steamworks Brewpub were still going strong.



*Alistair Beaton, Master, Donna Farquhar, Mistress at VAC*

The next day we were joined in our hotel for breakfast by Liveryman Capt Alistair Beaton, Immediate Past Chairman of the North American Region. I must record my special thanks to Alistair for driving so many miles from Abbotsford to Vancouver to collect us from and return us to our hotel each day.

On a blisteringly hot day, our first stop was at Pitt Meadows Airport, where we were joined by Upper Freeman Capt Bruce Lothian. This delightful airport



is now under the direction of Airport Manager Guy Miller, a former Cathay colleague who is clearly doing a magnificent job; it was an unexpected pleasure for me to see him again.

### VANCOUVER AVIATION COLLEGE

We then visited the Vancouver Aviation College (VAC), an impressive facility where both Alistair and Bruce are instructors. The College Principal, Capt Mostafa Khosrowtaj formerly Chief Pilot of Iran Air, is a friend and colleague of a Captain I used to fly with in Air Europe, also previously with Iran Air – Chief Instructor, I believe – what a small world it is!

We were introduced to some of the students there and treated to a delicious lunch at which we also met, at last, Donna Farquhar, Administrator of our NA Region, without whose tireless efforts the organisation of this part of the Tour would not have happened. Many thanks, Donna.

After lunch we were given a tour of the extensive and impressive VAC facilities before setting off for the Friday afternoon/evening session or 'Twilight Show' of the Abbotsford International Airshow, also known as the Canadian National Air Show.

As already mentioned, it was very hot, and the airfield was dry and dusty. We enjoyed a stroll through the static display, including walking through the cavernous Lockheed C5 Galaxy, which very much reminded me of the church-hall-like dimensions of the Boeing 747 freighter.

### WOMEN AND GIRLS

This year's show was highlighting the strength and focus of Aviation for Women and Girls. The displays opened with a flag jump by the Skyhawks, the Canadian Armed Forces parachute team, comprising 14 demonstrators including both men and women. It tickled me to hear a very experienced pilot mutter under his breath: 'why would anyone want to jump out of a perfectly serviceable aircraft?', but I suppose that's the pilot in me.

The Canadian Forces Snowbirds, flying a nine-jet formation of Canadair CT-114 Tutor aircraft, put on a fine precision display. Like the Skyhawks, this team was made up of men and women. As quoted in the official souvenir programme, Capt Catie Clapp, Snowbird 2, says: "My

*Both men and women fly in The Snowbirds*



career is the result of being inspired by the Snowbirds performing at an airshow in my hometown as a young girl. A family friend told me about the first female Snowbird pilot becoming the Commanding Officer and suggested I think about following in her footsteps. From that day, I set the goal of becoming a military pilot myself, dreaming of one day flying with the Snowbirds. My hope is that I can inspire someone in the same way I was inspired: to follow their passion and dreams." I say 'hear, hear' to that.

### GHOSTWRITERS IN THE SKY

I do not intend to go into a full rundown of the displays but should highlight Nate Hammond's 'Ghostwriter', a souped-up de Havilland Chipmunk whose Gypsy Major engine has been replaced, I believe, with a 260hp Avco Lycoming GO-435 engine, not to mention the clipped wings and other aerodynamic modifications. His website says: "When the sun goes down, GhostWriter lights up the Night! With over 200lb (90kg) of pyro and illuminating LED lights, the stars become a backdrop for our trail from sparks and aerial burst of colour. It is a very engaging display." Then to close the evening's entertainment there was the North Star Drone show featuring a swarm of drones creating colourful artistry in the night sky.



*Enjoying the show (L to R) Alistair's son-in-law, Alistair Beaton, Belinda Scott, Mistress, Master and Bruce Lothian (Bob Leroux)*

The following day I had hoped to be able to present The Master's North American Trophy certificate to North Shore Rescue, but as it was a weekend this was not possible, and the presentation will be made by a delegation led by Capt Alistair Beaton at a later date. Instead, Dominique and I had the opportunity to further explore Vancouver, including watching the constant comings and goings of the Harbour Air float planes and a delightful walk down memory lane to the Public Market on Granville Island, where on many occasions in the past I had bought whole salmon. This was followed by one of my favourite short ferry rides in the *Aquabus* across False Creek.

Sunday was not quite so hot for the daytime show at Abbotsford. We were treated to seats in the President's

Enclosure with Alistair, Chris, their son-in-law to whom Alistair's wife Diane had given her ticket, Upper Freeman Bruce Lothian and Freeman Belinda Scott, whose articles you have no doubt read in *Air Pilot*. We were joined for a while by ex-pat Steve Stewart, who is one of the Directors of the Abbotsford Air Show, and Bob Leroux, a former Civil Aviation Inspector.

### FAST LADIES

In this year celebrating women and girls in aviation, two ladies deserve special mention. First, Melissa Burns, who in 2006 at the age of 22 became the youngest female member on the United States Unlimited Aerobatic Team and who in 2015 came third in the World Aerobatic Championships. Her display in the Edge 540 was electrifying. Second, Major Kristin 'Beo' Wolfe gave us a



*Lightning and Mustang in tight formation (Jeffrey Jackson)*

superb demonstration of the capabilities of the Lockheed Martin F-35 Lightning II and later joined the North American P-51 Mustang of the USAF's 50<sup>th</sup> Anniversary Heritage flight. These two aircraft performed the tightest of formation flying, demonstrating not only the aircraft but the skill of both pilots – well done, indeed.

On Monday, Alistair took us back to Pitt Meadows to pick up a Cessna 172: with the three of us on board he allowed me to do the flying to Chilliwack Airport (Gateway to the Fraser Valley) and talked me through the landing. (If you've read my previous missives, you'll know I'm still getting used to the eye height!). The restaurant there is known for its pies, but having not yet eaten I opted for breakfast, leaving Alistair to sample one of their delicious pies.

We then flew to Abbotsford where Kristina Marsden gave us a comprehensive tour of the Conair facility, including the workshops where aircraft are converted for aerial firefighting. Conair has recently purchased some of Flybe's De Havilland Canada Dash 8-400s, so there is a fair chance I have flown on one of those aircraft.

Finally, we flew back to Pitt Meadows where Alistair had arranged for a flight with Sky Helicopters in a Bell Jet Ranger. I have to agree with the IPM who said last year



*The Master brushes up his Cessna flying skills*

that this was one of the most spectacular scenic tours imaginable. The mountains are carpeted with pine trees and hidden in the valleys are the most spectacular lakes, which provide a truly romantic setting for proposals, wedding photos etc which are unsurprisingly very popular – absolutely breathtaking. After a lovely dinner with Alistair, Diane and Chris we were driven back to the hotel for the final time, ready for our flight the following day to Ottawa.

### OTTAWA

We flew from Vancouver to Ottawa with WestJet - a morning flight, but with the time change, we arrived late afternoon - and then found our way to The Lord Elgin Hotel in the centre of the city. Our host in Ottawa was scheduled to be Upper Freeman Geoff Lowe, but as he was unavoidably delayed in the UK, we spent the next day renewing our acquaintance with the sights of this beautiful city.

The next day Geoff, having rushed from the UK, through Toronto to Ottawa and with only a few hours' sleep, picked me up early and we set off for our appointment with MajGen Jamie Speiser-Blanchet, CD, Deputy Commander Royal Canadian Air Force, National Defence Headquarters (Carling). Maj Gen Speiser-Blanchet, recently in post, was keen to learn about the City Livery Companies and what we, in particular, do. We enjoyed a useful discussion, and she was pleased to learn that at last year's T&A 442 (T&R) Squadron RCAF was awarded the Barry Marsden Memorial Award for Outstanding Courage or Devotion to Duty in the Air.

From there we set off for our meeting hosted by Jeff Dawson, Assistant Vice President of NavCanada and with Michael Munro of TransportCanada on Zoom. Jeff and I found it interesting that, as he was formerly an air traffic controller in the Vancouver area, he and I had quite probably spoken to each other over the radio in my years in Cathay Pacific, reinforcing the idea that aviation is truly a small world. Like NATS in the UK, NavCanada is now a privately run company in charge of air traffic services. Jeff informed us that since Covid-19, traffic across the North

Atlantic, most of which passes through Canadian airspace, has doubled. Not only that, but the aircraft being used are mostly larger than previously, so it seems that the industry is not just recovering but expanding. It was a fairly brief meeting, but useful in that I was able to re-establish contact with TransportCanada and NavCanada.

With only one day to fit in these visits, Geoff stopped us *en route* for a quick sandwich before proceeding on to the Transportation Safety Board of Canada where we were to meet Board Member Paul Dittman. The TSB's brief covers more than aviation: it is also responsible for investigating accidents in the maritime, rail and pipeline arenas. Paul made us very welcome, and it was good to continue the relationship forged by Robin at last year's meeting.

## MONTREAL

Early the following morning, Friday, we took a taxi to the ViaRail terminus for our train to Montreal, a two-hour journey eastwards through Ontario. I know I should be encouraging aviation, but it makes a pleasant change to be able to look out of the window at the landscape, towns and villages in a fair degree of comfort as it races by. After a relatively short walk from the terminus to the hotel we dropped our bags and started the short walk back to the ICAO building. One or two drops of rain rapidly turned into a downpour reminiscent of the tropical rain we experienced during typhoons in Hong Kong. Fortunately, we were able to shelter under the awning of one the more prestigious hotels until the storm subsided into light rain. The hotel kindly lent me an umbrella, which proved

*Off for spectacular sight-seeing by Sky Helicopters*



useful over the next day or so (I did return it before leaving for DC on Sunday morning).

ICAO is a Specialised Agency of the United Nations, which means it works closely with the UN and with other UN Specialised Agencies of which there are several, such as the International Atomic Energy Agency (IAEA) and the World Health Organisation (WHO). I was met by Riza Esmeralda, Executive Assistant to Michele Merkle, Director, Air Navigation Bureau, ICAO, who took me up to meet Michele and Dr Ansa Jordaan, Chief of the Aviation Medicine Section, whose area of expertise is principally health and wellbeing.

Through Donna (and with the guidance of the DAA) I had been able to highlight five of the topics of interest, mentioned above, to discuss at this meeting, namely:

- Fitness to Operate
- Training and Standards
- Flightcrew Health and Wellbeing – Peer Support and prevention and detection of misuse of psychoactive substances
- Commercial Air Transport Briefing Notes
- True North - AHTAG

As with the Maj Gen Speiser-Blanchet at the RCAF, Michele was new to the position of Director and was keen to learn about the City Livery Companies and what we, as the Honourable Company of Air Pilots in particular, do. Similarly, Dr Jordaan was interested to hear what we can offer, especially in the aftermath of the German Wings accident and how we as an industry can prevent a recurrence. Whilst it is not always obvious what has been achieved at these meetings, the fact that these senior people continue to make time for us to meet in person and give us the opportunity to make our voice heard is very positive. Maintaining contact remains both important and relevant.

Following our discussion, I was introduced to Sarah McLaggan, ICAO Communications Associate who took me for a guided tour of the building. From the outside one would never guess how impressive the facilities are within the building.

There are offices for the permanent national delegations to the Council; conference quarters, the Council chamber and committee rooms equipped with modern simultaneous translation equipment. The conference hall seats nearly 1,000 people, often dressed in their national costumes, which makes for very colourful events. This hall has remarkable acoustics and can be split down the middle to make two independent spaces. The Moroccan room, so named because it was financed by Morocco, is decorated with mosaics on the walls and furniture carved



in the national style. Finally, she took me to visit their very interesting museum.

Saturday was a day off and we were able to enjoy a pleasant walk in the light rain, under the aforementioned umbrella, around the old town where there are many interesting shops, cafes and historic buildings.

## WASHINGTON DC

On Sunday morning, (after returning the umbrella!), we took the airport bus from which we were able to see other parts of the city and its surroundings. Customs and Immigration formalities for the USA were completed prior to departure from Montreal, saving a lot of time queueing on arrival at Dulles, where we were met by Liveryman Capt William (Bill) Pinney, who accompanied us to our hotel next to the Pentagon. We hadn't chosen the best location, but the hotel was clean, comfortable and met our needs.

On Monday morning, Bill took us back to Dulles airport, to the Smithsonian Air and Space Museum's Steven F Udvar-Hazy Centre, which displays thousands of aviation and space artifacts, including the Space Shuttle Discovery, a Lockheed SR-71 Blackbird (I would love to have flown that), the Boeing B-29 Superfortress Enola Gay and an Air France Concorde, cleverly positioned, with its main gear one side of the aisle and the nose gear the other such that visitors have to walk underneath it. As a docent or guide at the museum, Bill gave us the benefit of his encyclopaedic knowledge of the exhibits: quite how he finds the time along with his commitments as a Captain with NetJets is a mystery to me.



*Bill Pinney introduces The Master to the shuttle Discovery*

In the afternoon, Bill took us to Airbus where we met Liveryman Capt Simon Lawrence, Chairman of the North American Region. Having spent the bulk of my career on Boeings, I found the visit to Airbus in Washington particularly interesting. Capt Craig Hildebrandt, Senior Director, Safety & Flight Operations, Technical Affairs

hosted us and we saw a presentation of their new ACJ TwoTwenty aircraft, a very modern executive jet derivative of the A220 series aircraft and others in their Neo (New Engine Option) range of aircraft.

I was invited to try the static TwoTwenty simulator; the challenge being to land at Madeira International Airport Cristiano Ronaldo. I flew there many times as a First Officer in my time with Air Europe, so I was familiar with the curved approach around the bay to land on the slightly uphill 9,124ft (2,780m) runway 05, which is now almost double the length in my day when the airfield was called Funchal and the runway was 06, just 5,249ft long. This was my first attempt at flying with a sidestick and I found it quite intuitive. Once I had sorted out speed control (and where I was in relation to the airport) I managed to land on the runway!



*The B-29 Enola Gay, which dropped the Hiroshima atomic bomb*

## SAFETY BOARD

The following day we were once again met at the hotel by Bill and Simon. Our first appointment was with Bruce Landsberg, Vice Chairman of the National Transportation Safety Board. The NTSB is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in the other modes of transport, namely: railroad, transit, highway, marine, pipeline and commercial space. Its brief is to determine the probable causes of the accidents and events it investigates and to issue safety recommendations aimed at preventing future occurrences.

Bruce arranged for Senior Advisor Ted Dunlap to accompany us on a tour of the NTSB laboratories where Flight Data Recorders, Cockpit Voice Recorders and the like are analysed. I was somewhat surprised to learn that there is no single data standard for these recorders and that investigators first have to establish which data is being used as each manufacturer seems to use its own. Surely this is an area that could be standardised in the interest



*Neil Armstrong's moon-walk space suit at The Smithsonian*

of safety. Seeing up close the challenges investigators face, whether it is a data chip in sea water or a chip on a broken motherboard, to mention just two examples, was absolutely fascinating. Finally, we had a convivial chat with Tim LeBaron, Director, Office of Safety. All in all, this was a very satisfactory visit, the first in several years, establishing contacts which I trust will continue in the future.

From the NTSB we walked the short distance to the FAA building where we were met by David Burkholder, Deputy Executive Director. Once again it was useful to continue the contacts made last year by Robin Keegan and, as I have said many times before it is so helpful being able to put faces to names.

The next day, Wednesday, we visited the Radio Technical Commission for Aeronautics (RTCA). This is a membership-based organisation that works in conjunction with the FAA, EUROCAE (the European Organisation for Civil Aviation Equipment) in Paris and others. We were met by Terry McVenes, President & CEO, Andrea Berry, Senior Director, Industry Relations & Membership, and Karan Hoffmann, Program Director. This is an organisation with which, I feel, we could benefit from future technical co-operation.

## SMITHSONIAN

In the afternoon Dominique and I took the opportunity to visit the National Air and Space Museum of the Smithsonian Institution, across the road from the FAA building. Following Bill's advice, I had booked the free

timed-entry passes which limited the time queueing in the hot sun before being admitted. Much of the museum was being renovated but we were able to see *The Wright Brothers & The Invention of the Aerial Age* exhibit, the space suit worn by Alan Shephard during the first manned spaceflight by the USA, the Gemini VII capsule used by astronauts Frank Borman and James Lovell, and the Apollo 11 Command Module, *Columbia*. That evening Dominique and I hosted Bill and Simon to dinner as a token of thanks for the time and effort they had put in to helping us.

Thursday was mostly a free day, so we took first the Metro and then the tram to visit Old Town Alexandria Waterfront, a delightful historical district with many interesting boutiques, cafes, and restaurants. Then it was back to the airport to take the late-night British Airways flight back to Heathrow. This was our first flight on the Airbus A380: I can see why passengers like it so much, as it is quiet, comfortable and, of course, spacious. On arrival we took the National Express Coach to Winchester where we were met by our delightful neighbour who kindly drove us home.

Overall, this was a very successful tour, with old contacts renewed and new contacts made. The North American Region is in good hands, and I am sure it will benefit greatly from Assistant Mark Tousey's initiative to attract charitable donations which will enable us to offer PPL and Gliding Scholarships, as in the UK.



*A Boeing pilot gets his first taste of the Airbus sidestick controller*

My special thanks go to Alistair Beaton for going above and beyond in driving us around and for the experiences he gave us, as did Geoff Lowe in Ottawa, and Bill Pinney and Simon Lawrence in Washington DC. Also, my thanks go to Diane Beaton, Bruce Lothian and all the various military, Governmental and other officials who gave their time to meet me. Finally, my thanks must go to Donna Farquar, Administrator, North American Region for organising and co-ordinating the tour. □

# AFFILIATED UNIT PROFILE: ROYAL AIR FORCE BATTLE OF BRITAIN MEMORIAL FLIGHT (BBMF)



*By Sqn Ldr Clive Rowley MBE RAF (Retd)*

This year the Royal Air Force Battle of Britain Memorial Flight – known to all as the BBMF – has celebrated 66 years of continuous service. Inaugurated at a formal ceremony at RAF Biggin Hill

on 11<sup>th</sup> July 1957, the unit was unveiled as the Historic Aircraft Flight, although it was already being referred to, not least in the RAF Biggin Hill Operational Record Book for that day, as the Battle of Britain Flight. This became its official title in February 1958, and in 1969 it was renamed the Battle of Britain Memorial Flight.

From humble beginnings, as a small unfunded unit with an entirely volunteer workforce, and an initial complement of three PR Mk XIX Supermarine Spitfires and the RAF's last airworthy Hawker Hurricane (LF363), the BBMF has since seen many changes. It has evolved into a regular, supported RAF unit, funded by the Ministry of Defence and manned by established, full-time service personnel to maintain and operate its remarkable collection of 12 historic aircraft. These include one of only two airworthy Avro Lancasters in the world, the world's only substantially original Spitfire with Battle of Britain combat history, five other Spitfires of various marks (two of them with D-Day history), two Hurricanes, a Douglas C-47 Dakota and two de Havilland Chipmunks. The BBMF aircraft now all wear

*The classic BBMF formation of Spitfire, Lancaster and Hurricane (Claire Hartley)*



carefully researched and authentic colour schemes that tell stories of various theatres of war, particular units and the inspirational human endeavour, courage and fortitude of specific individuals.

Today, the BBMF is a household name and a national institution. What the BBMF does is no single thing: it entertains, educates, inspires, celebrates and honours.

## PRESERVATION

At the heart of the Flight's ethos is the long-term preservation of its historic aircraft in airworthy condition. The BBMF personnel believe passionately that the aircraft should be kept where they belong, in the air, as a living memorial to those who have gone before.

Today the BBMF's historic 'warbirds' are maintained to the same rigorous requirements as the RAF's most modern aircraft, as mandated by the MAA, and they are flown by modern RAF pilots and crews to exacting standards. This is no easy task and requires long-term planning, as well as careful husbandry of the aircraft by limiting g-loadings, maximum speeds, engine power settings and the number of flying hours on the aircraft for each display season.

In common with all of the RAF's modern aircraft, the BBMF fleet has an Out-of-Service Date (OSD), but this is continuously reset. Work is currently ongoing to extend the OSD for the BBMF aircraft to at least 2050. There is every reason to hope that the BBMF will still be active to celebrate its 100<sup>th</sup> anniversary in 2057.

## COMMEMORATION

The BBMF's commemorative role is perhaps its most important. For many, the sight and sound of the BBMF aircraft has long been a tangible demonstration of the nation's respect and gratitude for those who designed, built, maintained and crewed our aircraft during the World War II, as well as being a tribute to those who died whilst doing so. Although the Flight was originally formed to commemorate the RAF airmen who died during that war, and particularly during the Battle of Britain, it now flies in tribute to those of all ranks and all roles who have lost their lives in service with the RAF, from its formation in 1918 to the present day. The BBMF reminds us of the debt we owe to all those who have paid the ultimate price in the service of their country, fighting to preserve the freedom of others.



## HERITAGE

The BBMF continues to promote the RAF and its heritage by displaying its historic aircraft in the air and on the ground, on as many occasions as possible. The Flight has always symbolised excellence, dedication and service. However, over the years the BBMF has become more than that, representing a continuance of the values held dear by the RAF and typifying the professional excellence, teamwork and dedication that have existed in the Service since its foundation and to which today's RAF people still aspire. This dynamic synthesis of old and new, people and machines, is a source of great envy for many air forces that do not have an equivalent, and one of great pride for the modern RAF.



*BBMF technicians at work on a Spitfire (Clive Rowley)*

## INSPIRATION

The BBMF aims to inspire all those who see its aircraft on the ground and in the air. The sight and sound of the Flight's aircraft and the commitment of those who fly and maintain them seem to lift the spirits of veterans and public alike. There are few sights or sounds able to provoke more powerful emotions than the BBMF aircraft. In their natural element, in the air, they tug at the heart strings, making a greater statement than any history book or written account, and they provide a living tribute greater than any static memorial.

Hundreds of air cadets visit the BBMF at RAF Coningsby each year; view the Flight's aircraft close-up and hear inspirational stories of courage and heroism associated with the aircraft and their colour schemes, told by the volunteer guides at the BBMF Visitor Centre. The BBMF also engages with young people whenever possible, with school education sessions for Key Stage 2 pupils and STEM activities to inspire older students, something which, as a highly technical service, is at the heart of the RAF's ethos. One of the latest projects with a STEM focus is the BBMF's virtual reality Spitfire "simulator" with 3D-printed cockpit controls.

## THIS YEAR

Despite the problematic 2023 summer weather, the BBMF

has enjoyed a full and successful display season this year with several high-profile events.

The BBMF participated in the King's Birthday Flypast over London on 17<sup>th</sup> June with the Lancaster leading both of the Flight's Hurricanes and Spitfire MkVb AB910. For most of the participants in the flypast this was their only event of the day, but typically for the BBMF, whilst this was the most important with the largest audience, there were many other events to attend during the day. The Lancaster completed five further flypasts and a display at the Larne Armed Forces Day event on the coast of County Antrim, Northern Ireland, before landing at Prestwick and then conducting three more flypasts during its return flight to Coningsby, landing after a long day at 20:10. The Spitfire and two Hurricanes also flew various further individual flypasts and the Spitfire displayed at the Portsmouth Armed Forces Day at Southsea, before returning home.

His Majesty King Charles III visited the BBMF at RAF Coningsby on 24<sup>th</sup> July at his specific request, demonstrating the high esteem in which he holds the unit. A veterans' tea party was held in the BBMF hangar immediately prior to The King's arrival, with 16 World War II RAF veterans attending, aged from 98 to 102. The King spent time sitting at each of six tables where the veterans were seated with some of the BBMF ground crew. He chatted freely and easily with them all, clearly at ease and taking a keen interest in each of the veterans and their stories, even overrunning the time schedule in the process.

Sixty-six years after its inauguration, the RAF BBMF is still going strong, the Flight has evolved for the modern world in which it now operates and it looks forward to many more decades of service. □



*HM The King meets the BBMF and World War II veterans at Coningsby in July 2023 (ASI Moharram)*

BBMF activity can be followed on social media: facebook.com/BBMF.Official; Twitter/X, @RAFBBMF; Instagram, @RAFBBMF

*[Sqn Ldr Clive Rowley, a 44-year RAF veteran, is a former OC and team member (1996-2007) of the BBMF.]*



# AUSTRALIAN AFFILIATIONS

*By Liveryman Rob Dicker*

In parallel with Company's Affiliation programme as detailed in *Air Pilot*, the Australian Region has three affiliated units or organisations, each of which will be profiled in the coming months.



## CENTRAL FLYING SCHOOL

The first unit to be affiliated, in 2015, was the Royal Australian Air Force Central Flying School. Formed in 1913 at Point Cook, Victoria, it is the oldest military aviation unit in Australia, older than the RAAF itself. Since 1940 CFS's primary role has been to train service flying instructors, but over time it has also taken on other roles including supervising instructor standards within operational training units, conducting flying refresher training courses, testing Instrument Rating Examiners throughout the RAAF and assessing Air Force flying instructors. Through the flying instructional and examining roles, the school is responsible for the maintenance of pure flying standards in the RAAF. Since 1962 CFS has also been the home of the RAAF's formation aerobatic team which, since 1968, has been named the Roulettes and today performs as a six-ship team in Pilatus PC-21 training aircraft.

During his tour of Australia in 2015, PM Chris Ford was able to present the Certificate of Affiliation to Upper Freeman and Commanding Officer, CFS, at that time, Wing Commander Arnie Morscheck at their current home at RAAF Base East Sale, in Victoria.



## TEMORA

The second organisation/unit to be affiliated in Australia was the Temora Aviation Museum which was presented with its Certificate of Affiliation by PM Colin Cox during his tour of Australia in 2018.

Temora, located on the western plains of NSW, has a significant part in Australian aviation history. In 1941 the RAAF set up the No 10 Elementary Flying Training School at Temora becoming the largest and longest-lived of the Empire Air Training Schools established during World War II. During its life more than 10,000 personnel were involved in its operation training more than 2,400 pilots. The Temora Aviation Museum was established in 1999 by Sydney businessman David Lowy whose impressive collection of warbirds was donated as the core of the

new museum's aircraft.

In 2019, under an agreement with the Department of Defence, ownership of 11 historically significant aircraft was transferred to the RAAF, all of which are in flying order. However, the aircraft continue to be housed at Temora and are maintained and flown by the same staff as the Temora Historic Flight. In 2021, the RAAF's centenary year, this flight was incorporated into No 100 Squadron RAAF, with the flight's pilots inducted into the RAAF Reserve as flight lieutenants. Temora is also the host of "Warbirds Downunder", a biennial event that brings together warbirds and other aircraft from across the country for a celebration of Australian aviation history.



## HALL OF FAME

The latest organisation to affiliate with the Australian Region, in 2022, is the Australian Aviation Hall of Fame. The Hall of Fame was established in 2010 with a mission to establish the organisation, and to formally induct into it people and organisations that have made an outstanding contribution to civil aviation in Australia and Australians who have made an outstanding contribution internationally.

The Hall of Fame's logo is a reference to its first inductee, Lawrence Hargrave, whose experiments with box kites in the late 1800s, on the south coast of NSW, did much to further the knowledge required to enable manned flight. Many of those inducted into the Australian Hall of Fame have also been contemporaneously recognised with awards by the Air Pilots. Herbert "Bert" Hinkler, to name but one, was just the second aviator to receive the Johnston Memorial Trophy from the then Guild of Air Pilots and Air Navigators in 1932 and was also among the inaugural inductees to the Hall of Fame.

First established in the City of Wagga Wagga, the Australian Aviation Hall of Fame now has a permanent home and exhibition area within the premises of the Historical Aircraft Restoration Society, located at Shellharbour Regional Airport (about one hour's drive south of Sydney) where it also holds an annual Gala Induction Dinner.

The Patron of the Hall of Fame is Upper Freeman Air Chief Marshal (ret) Mark Binskin and several Air Pilots members serve or have served on its board. Its President, Steve Padgett, was the 2022 recipient of the Company's Australian Bi-Centennial Award. □



# AIR PILOTS YOUTH GLIDING SCHEME DAYS

*By PM Dr Michael Fopp*

In his Message in the August *Air Pilot* The Master mentioned how important the flying scholarships provided by our Company were, with a special mention of the Youth Gliding Scheme. Every year, we offer schools the opportunity to take part in a heavily subsidised day out at a British Gliding Association gliding club. The offer is open to students of secondary schools and academies through of a group of City of London Livery Companies led by the Honourable Company of Air Pilots. For a charge of only £15 each, students will receive a flight in a glider under the instruction of an experienced qualified instructor.

Beyond the excitement of flying, students experience the structured and disciplined, yet enjoyable, environment of an operational airfield. They find themselves immersed with people they have never met when they interact with committed and enthusiastic volunteers, many whom appear as role models to these youngsters. For the past few years I have acted as the Air Pilots' Host/ Ambassador for the scheme at the London Gliding Club, near Dunstable. I am always struck by the change in the

burden on struggling households. However, the charge is intentional, as part of the exercise in making sure these youngsters are committed to their special day. Their next challenge must be to convince their parents that going flying in a glider for the first time is something worth doing. However, the thing that has struck me about the effort taken by both staff and students is the, sometimes, logistical nightmare of actually getting from their school to The London Gliding Club. Most have access to their own minibus or are able to hire one for the day, but some schools arrive by public transport, and I recall one school actually walking from Dunstable to The Club. There is no bus and the distance they walked is about 4 miles; needless to say, it was not difficult to find volunteers to ferry them back to their train at the end of the day.

## BRIEFINGS

On arrival, once the inevitable paperwork is completed, everyone files into a briefing room for the usual health & safety and flying brief. They are told about airfield safety and receive a short talk about the aircraft they are to fly and the theory of flight etc. It is in this environment that

I can look at each youngster (there are usually between 10 and 12) and assess their level of interest and excitement. I also welcome them on behalf of The Master and all our members and explain as briefly as possible what a Livery Company is, and what we do. After about 20 minutes they are 'released' to help with moving the gliders to the launch point. At this stage the general demeanour of the young people is either hyper-active (a small minority) or demure and reserved. Heads are down, there is little eye contact and almost everyone is quiet - they are naturally diffident because they are in an environment which is alien to them, and

the rules they have heard about the dangers of being in the wrong place at the wrong time on an airfield have left them just ever so slightly nervous.

Once out at the launch point things usually get worse before they get better, for they see a winch launch and consider it spectacular and somewhat dangerous, but they are quickly reassured when the tug 'planes arrive and are told that they will be towed, sedately, into the sky. They also see people moving around constantly, all working to



*A school group with instructors at Dunstable (M Fopp)*

young people which is evident at each of the occasions I have hosted.

## INNER-CITY CHALLENGES

Because of its proximity to London all the schools attending Dunstable have come from inner city locations and their first challenge is to obtain the, albeit minimal, cost of their day. The cost may only be nominal, but when the vast majority of the students are already receiving free school meals, even this is an extra financial





ensure one glider at a time is conveyed into the air and are interested to know that all but a few are volunteers. Whilst we try our best to inform them of everything which is going on it is no surprise that they are overawed at all the things they initially see. This starts to become less so as they meet their instructors and are briefed next to a glider on what to expect from the flight and how they will be actually flying the glider. Their interest is piqued and their eyes start engaging with everyone. They become more vocal and they start asking questions - many questions. We see them change from downcast introverts to their real selves.

### CHANGED ATTITUDES

It is amazing to watch and once the actual flying starts and students complete their flights, walk back with the wingtip of a glider in their hands, their whole attitude has changed and this is infectious for those who have not flown yet. And so it goes on throughout the day; each watches a friend experience something he/she has never done before and their enthusiasm is passed on to those still waiting to fly. They see teamwork being an essential part of allowing each launch to take place; they meet hugely experienced volunteer instructors who are, in the main, old enough to be their parents or grandparents; they experience hard work being done for no payment except the pleasure of being on an active airfield and helping; they learn that discipline is good because without it they might get hurt and certainly flying would not be possible.

They spend a day (usually a sunny one) on a beautiful grass airfield in outstanding countryside; they watch airliners flying close to them on approach to Luton Airport and realise that the skill and safety management of such a mixture is only possible with trust and training being exercised by everyone involved; they discover the power of the elements and the fact that an aircraft can fly without power, silently and with a beautiful view of the world from an altitude they have never been at before. Most of all, they discover that even they can control an aircraft and make it fly straight and level, climb, descend and turn - all in a 30 minute flight. I do not think it is too much to hope that this literally expands their horizons in more ways than one.

### LIFE-CHANGING EXPERIENCE

All too soon the day is over, and the students return to their inner-city lives and environment, but for one day they have had a life changing experience which has given them empirical knowledge that their own horizons can be as limitless as the ones they experienced on their day flying a glider. I would not presume to suggest that they go home different people, but the teenagers I see on arrival are not the same as the young adults I say 'goodbye' to at the end of the day. □

## THE CENTENARY OF THE

*By Liveryman Capt Delphine Gray-Fisk*



Back in 1964, whilst I was living in a motor caravan and towing in the de Havilland Tiger Moth at the London Gliding Club at Dunstable, a strange machine appeared on the horizon. It was Derek Piggot, the Chief Flying Instructor of the rival gliding club at Lasham, flying a Bristol Boxkite, from Booker to Henlow, and claiming that he needed to refuel *en route*.

After much questioning from us glider pilots we learnt that he was taking part in a film about the 1910 *Daily Mail* Air Race – later to be called *Those Magnificent Men in their Flying Machines*. Some of us were delighted to hear that they were looking for film extras up at Henlow. Early the following morning two of us arrived, by motor caravan, at Henlow and offered our services. We were quickly snapped up by Ken Annakin, the Second Unit Director.

### A MAGNIFICENT TASK

Better still, Derek Piggot introduced us to the Aviation Technical Advisor, Air Commodore Allen Wheeler, who quickly cottoned on to the fact that I was towing gliders to build up hours for the Commercial Pilot's Licence. Consequently, we soon set off in the film's Tiger Moth G-ANDE, and climbed to about 2,000ft, whereupon he cut the engine, and instructed me to fly back to Henlow and complete a 'dead stick' landing - not really a problem for a glider pilot! He then offered the job of ferrying, and early morning and evening turbulence testing in the Tiger, to assess which of the film's aircraft could fly that day. It was a marvellous experience for a 19-year-old, especially working with the film's main pilots, most of whom were



# ENGLISH ELECTRIC WREN

previous test pilot colleagues of Allen Wheeler. We used the motor caravan as the pilots' HQ!

Once filming was over at Henlow the Second Unit, complete with the replica aircraft built for the filming, de-camped back to Booker, where the Brooklands Race Track had been recreated. We were left, temporarily, at Henlow to record the sounds of genuine engines of the period. Allen was insistent that young Air Cadets in the audience would not accept a Rolls-Royce Continental sound! So we settled down with vehicles and aircraft from the nearby Shuttleworth Trust (of which he was Aviation Trustee) for the recording. Somewhere in the archives there's a clip of my flying the 1910 Deperdussin Monoplane over Henlow, in a red coat!

## FLYING THE WREN

Following Magnificent Men, I was invited to fly more of the Trust's aircraft, including the English Electric Wren. It was believed that an 8-stone (51 kg) young lady was more likely to get it airborne! Much like a glider it was easily de-rigged, and we transported it to most of the main air shows around the country. Low hops were usually the order of the day but, if conditions were right, we even managed a dicey circuit.

I particularly remember taking it up to Warton, the home of English Electric. Believe it or not, the Wren was apparently the first aircraft of its own design that the company had built, though some of the companies which merged to form EE in 1918 had been involved in building World War I seaplanes. The second and third were unsuccessful flying boats, the fourth was the Canberra, and the fifth the P.1 Lightning. All the hierarchy at Warton were incredibly welcoming and generous. Prior to the air display itself, Chief Test Pilot 'Bee' Beamont and the SATCO drove me round the airfield, pointing out the various hazards, such as the glide path and localiser aerials and, a little further afield, the River Ribble, the sewage farm, and the mental hospital.

Come the hour, I took off into an amazingly brisk wind and, half-way down the runway, managed to reduce speed sufficiently to temporarily 'hover' in front of the crowds - to their utter delight. I completed the circuit, taking care



*The author celebrates another successful flight*

not to get blown downwind too far, and then headed back into wind for the final approach, requiring a little more airspeed than I would have liked, to make progress.

## BEE ATTACKS WREN

The crowd was ecstatic - particularly 'Bee', who wanted to take me up in his Lightning during his display, which I politely declined. He loved the Wren and impudently asked, with its two cylinders, what happened when one 'went assymetric'! Later on, when practising at Farnborough one evening prior to the Air Show, he pleaded to be allowed to attempt to fly the Wren off its long runway. He bowled down the runway on its nose - hoping to get airborne; in fact, the controllers even lowered the arrester net at the far end of the runway, but all to no avail. The Wren, with the extra weight on board, remained firmly glued to the runway.

Over the immediate following years, having flown several other Shuttleworth aircraft at various shows, I went on to becoming a professional pilot. My first airline position was down at Lympne - home to the 1923 Lympne Trials, of which the Wren was joint winner. After Lympne it was up to Gatwick to fly the glorious de Havilland Comet 4 which, despite its complex systems, was rather like a large Chipmunk to fly, and ended with a command on the Boeing 727, a sheer delight to fly and far removed from the little Wren, whose centenary we are now celebrating.

[This article was originally commissioned for Prop-Swing, the magazine of the Shuttleworth Veteran Aircraft Society - Ed]

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# LETTERS TO THE EDITOR

## ME.262 vs GLOSTER METEOR

Dear Editor,

In the August issue (no. 58) under the title 'Into the Overshoot', the opening sentence reflects the oft-repeated and inaccurate claim that the Me.262 was: "... the world's first operational jet fighter". Even our splendid Science Museum has a prominent display that states that the Me.262 was: "... the first jet aircraft to enter service in the world". Let me suggest otherwise.

The Me.262 had a futuristic and aerodynamically outstanding airframe. Designed by Willy Messerschmitt, it first went onto the drawing board in 1938 and first flew, powered solely by turbojet engines, in 1942. It was deployed operationally in early October 1944.

The delayed introduction of this iconic aeroplane was not caused to meddling by Adolf Hitler as is so often claimed,



*The Me.262 may have been the first in the air...*



*...but did the Meteor beat it into true service?  
(IWM via Wikimedia commons)*

but by delays in the production of the Junkers Jumo 004-B engine. The engine did not become available off the supply chain until September that year. Then, with General Adolf Galland in command, the newly-formed Me.262 Wing, *Kommando Nowotny*, operated for seven months until fuel shortages grounded the aircraft in April 1945.

Hence, the Me.262 saw service during a time that the Allies were infesting the skies over German-occupied and German territory – fielding raids of between 700 and 1,200 aircraft daily. This provided the hapless Luftwaffe with a total of between 150,000 and 200,000 targets during the time the Me.262 was operational. It achieved a very modest number of successful interceptions – usually said to be approximately 100 Allied aircraft (a fraction of the very 'optimistic' figures published recently in the RAeS magazine *Aerospace*!). There are no accurate

figures available for the number of Luftwaffe pilots killed when operating this aircraft – either following accidents or interceptions by Allied fighters. It has been estimated at 200, and probably demonstrates that, overall, the lethal nature of the aeroplane was more of an asset than a liability to the Allies. (For different reasons, the Meteor proved to be similarly dangerous to newly-converted Allied pilots.)

The air war had migrated away from the skies over Britain by April 1944. Hence, during the time the relatively pedestrian Gloster Meteor was being worked up to operational readiness from May 1944 until it was deployed against the V1 Flying Bomb (Doodlebug) with No 616 Squadron in July 1944, there had been no enemy aircraft as potential targets. Towed targets for air-to-air live firing and the gyro-stabilised camera gun-sight were all that were available.

During July 1944, there were a handful of experimental interceptions of unarmed Allied aircraft (such as the photo-reconnaissance de Havilland Mosquito) by Me.262s powered by pre-production 004Bs. These gave a false impression of operational readiness. Unfortunately, popular but careless historical reflections have continued to uphold this misconception even to this day.

The world's first operational jet fighter was the Gloster Meteor - but it simply does not compare to the Me.262 for the same degree of romance. Speed, to the average punter, is the factor most likely to impress, and the Me.262 design incorporated aerodynamic characteristics that permitted much higher speeds than those achieved by the Meteor. The critical Mach No of the Me.262 was 0.86; for the Meteor, it was 0.78. BUT ... the handling characteristics of the Jumo 004B engines were entirely different from the handling characteristics of the Whittle W2B engines that powered the Meteor Mk I. Rapid throttle movement of the 004 had to be avoided at all costs, whereas it was of no consequence to the British engine. High energy manoeuvres – essential for combat – were not advisable with the Me.262 due to disturbance of the airflow at the engine intake and a great risk of surge and/or flame-out (total engine failure). The Me.262 airframe was designed to achieve a speed of 520mph/M0.82 in level flight, whereas the Meteor MkI could only achieve a modest 450mph/M0.78. But the Meteor was specifically, and very sensibly, designed as an interceptor of the bomber forces of the day, and its potential in this respect was far superior to its Messerschmitt rival.

*Liveryman Ian Whittle*



# LETTERS TO THE EDITOR

## AVIATION MEDICINE NOTES

Dear Editor,

As a working Consultant I get asked all sorts of questions about how to keep our pilot population flying safely. This advice often also applies to the passengers who fly with all our pilots both civil and professional. This question came, to use a pun, out of the blue: "How soon can I fly after having an eye injection?"

Eye injections are now quite common for a condition called "wet macular degeneration". This is often picked up at a routine eye examination by an optician. WMD is a progressive disease process which, if left unchecked, can cause blindness. It can be detected early before there is any noticeable change in vision, so a pilot with WMD can still pass the vision standards for a Class One Medical. The injections are normally administered by a nurse trained in the procedure and given in a series of monthly injections with scans regularly to assess progress.

It has very good results. Many people do not consider the condition serious enough to be something they would even tell their AME about. There are those AMEs, of course, who ground all and everybody in sight, so a commonsense approach is needed.

The advice is that you should not fly for 72 hours. The eye normally takes about 48h to recover from this type of minor operation; 72h is recommended as there can be a very rare complication that can come on during this time frame. It is wise to be not far from the facility that gave the injection just in case. This advice is for everyone, pilots and passengers alike. There should be no exceptions; it is not worth the risk. Changes in altitude can do strange things, so do not go anywhere for 72h. Our consultant ophthalmic surgical colleagues all agree with this time frame.

PM Dr Ian Perry MAE

Consultant in Aviation and Occupational Medicine

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## BOOK REVIEW: *HAZARD SPECTRUM*, BY NATHAN GRAY

*Reviewed by Assistant Chris McGee*



When I started my flying career I really wanted to join the military: the training and operations fascinated me. Unfortunately "back then" this was not possible for a female pilot and so I went the civvy route, still vicariously living my fighter day-dreams through loads of airshows and superb books like this one.

The author (an Upper Freeman of the Company) opens his story with the freak ("unsurvivable") BAe Harrier accident that remained with Nathan throughout his flying career and undoubtedly shaped many of his decisions. Grounded for three months (a service rule following any ejection), he never lost his desire to return to flying the Harrier and we stay in the cockpit with him throughout his amazing career.

Nathan found himself being courted both by the RAF and the Navy as a trainee pilot and, after deciding the Fleet Air Arm was indeed the path for him, he progressed through

the ranks as an operational Harrier pilot in Afghanistan, Marine Commando and qualified as a test pilot in the USA. Finally, he was chosen to execute the first live Lockheed Martin F35 Lightning take-offs and landings from the new UK carrier HMS Queen Elizabeth, which were televised live - no pressure there then.

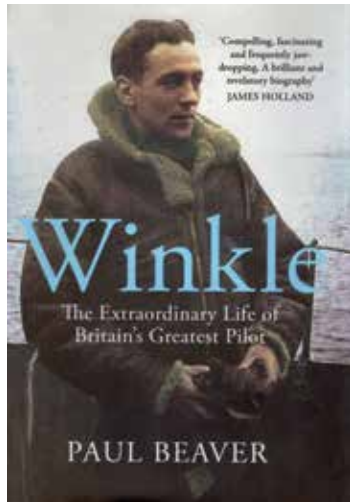
This book crackles with his honesty and gives a fantastic insight of what it really means to be in the cockpit in a war zone, being targeted by the Taliban and hunting for Osama bin Laden. Among the most decorated pilots in the UK forces, Nathan flew over 140 combat missions before leaving the Navy at the top of his career; at the time he himself chose.

A most engaging read, this is a book that will undoubtedly be revisited by anyone who puts it on their shelves and an inspiration to those who are considering a career in the sky in the Forces. □

*Hazard Spectrum: Life in the danger zone by the Fleet Air Arm's Top Gun*, by Nathan Gray: hardback, 313pp; ISBN-13: 9781035402519; price £22; published by Headline Publishing Group, Carmelite House, 50 Victoria Embankment, London EC4Y 0DZ; [www.headline.co.uk](http://www.headline.co.uk)

# BOOK REVIEW: WINKLE

By The Editor



Many members will have prominently on their bookshelves *Wings on my Sleeve*, the fascinating memoir by late Liveryman Capt Eric “Winkle” Brown, who remains (and probably always will be) the pilot to have flown more types (487) than any other. That book told Winkle’s extraordinary stories, from seeing the

1936 Olympics and meeting German ace Ernst Udet and other famous fliers in Berlin (and his brief internment there in 1939), service flying Grumman Martlets, conversion to test-flying and the amazing firsts that came with it (first jet landing, first twin-prop and first tricycle-gear aircraft onto a carrier) to collecting and sampling captured German types in 1945. It also told of his meetings with/interrogations of wartime German leaders, his postwar postings to the USA and Germany (helping to set up the new *Marineflieger*) and his later roles as Station Commander and diplomat.

These, and innumerable other stories, featured in the rivetting – and always hugely entertaining – talks and lectures which he delivered to countless audiences (unfailingly without notes) in later years, often leaving those audiences scarcely believing that one diminutive Scotsman could have achieved so much. This new biography by historian Paul Beaver suggests that, in part, they were right to be sceptical. Not that this is a trendy revisionist dismantling of a beloved hero by a sensation-seeking writer. Beaver was a 40-year friend of Winkle, who gave him unfettered access to his complete lifetime archive of correspondence, logbooks and notes, with the one proviso that the written result would not be published in his lifetime – with good reason.

Some hitherto-accepted facts fall victim to the archive’s revelations very early on: the Scotsman was, in fact, an East-End London orphan, raised by devoted adoptive parents in Scotland, with a father who was not an RFC officer; the passport stamps and other records fail to verify some of the pre-war German and Spanish adventures; there remain questions over whether he ever flew the rocket-powered Messerschmitt Me.163 other

than as a non-rocket-powered glider (though that would have been brave enough for most people). Throughout the narrative there is constant reference to the character traits (some may choose to firmly judge them as flaws) which simultaneously allowed Winkle to become perhaps the pre-eminent test pilot of all time but permanently frustrated his ambition to rise to the very top of the naval profession.

It was always accepted that Winkle was an exceptional pilot by any standards – including his own – but the book makes clear that he found it difficult to recognise or accept such abilities in others. Those who remember him as a confident and relaxed public speaker and confidant of the great and good may be surprised to learn how deep-seated was his resentment at his perceived lack of acceptance by the higher echelons. The often-brutal assessments by his superiors of his lack of suitability for promotion to higher rank are countered, however, by the frequency of the occasions when – whether by serendipity or contrivance – those same superiors managed to find the square hole of appointment into which their troublesome and outspoken square-peg pilot would fit perfectly. That ability to land in the right place at the right time was matched by his ability to emerge almost unscathed physically and reputationally from scrapes, often of his own making – who else could finish an unauthorised flight in a valuable jet seaplane fighter prototype by crashing it into the Solent without facing a court-martial?

This book is an easy and compelling read, enhanced by a good index and let down only by the poor-quality paper which does a disservice to those run-of-text photographs outside the glossy photo sections. It does not seek to debunk the legend that was Winkle, or to replace *Wings on my Sleeve*: rather, it should be seen as an essential companion to that work, balancing the romance of the autobiography with the sometimes-unpalatable truths contained within the archive which he himself meticulously maintained and which he knew would inform the content of *Winkle*. It must be left to the individual reader to decide where the balance lies between the two sources: what is clear is that the new volume needs to sit alongside its predecessor on any proper bookshelf. □

*Winkle: The Extraordinary Life of Britain's Greatest Pilot*, by Paul Beaver: Published by Penguin Michael Joseph; ISBN 978-0-718-18670 -8; 515 pages, hardback; UK price £25.00