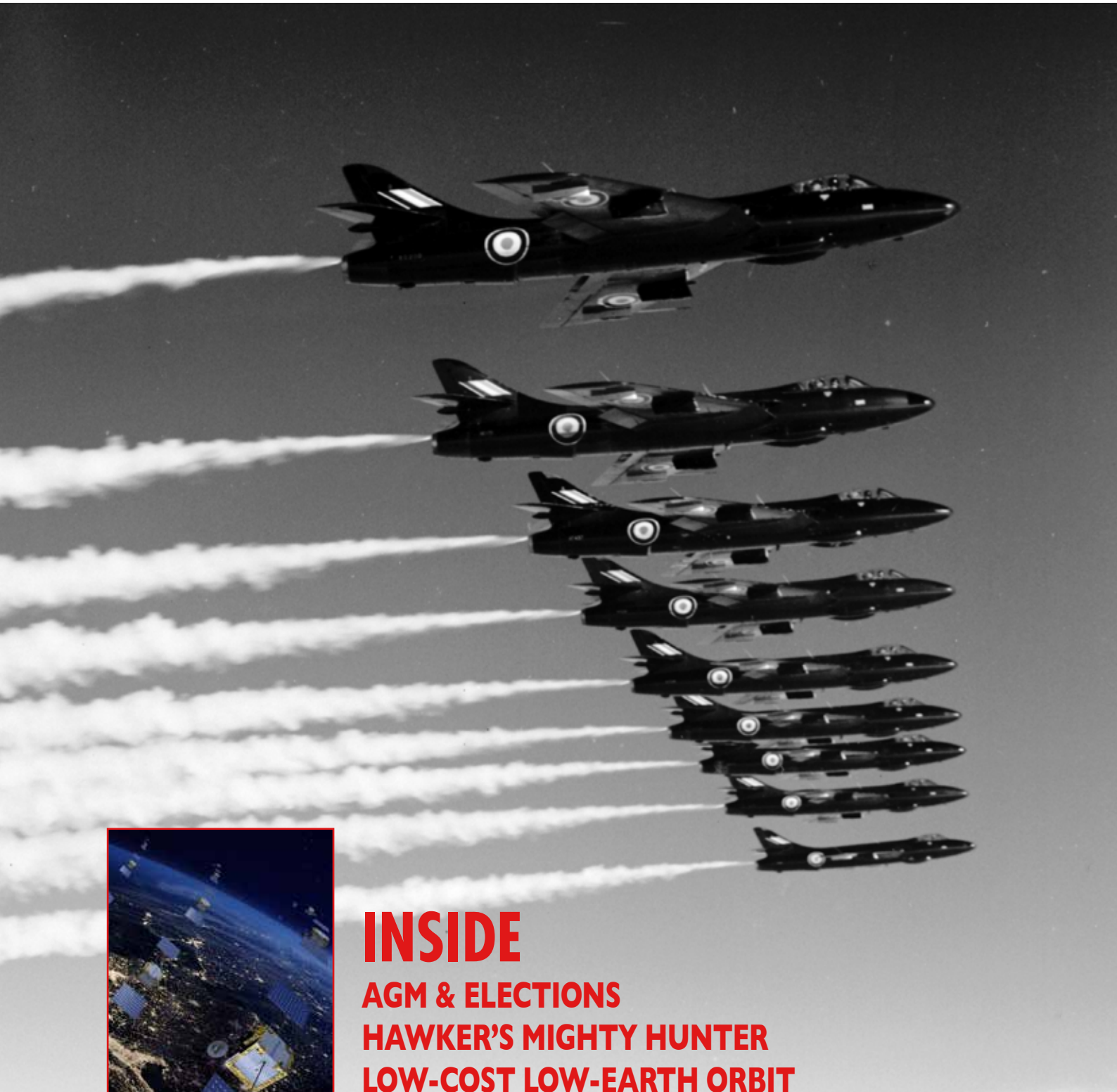




AIR PILOT



INSIDE

AGM & ELECTIONS

HAWKER'S MIGHTY HUNTER

LOW-COST LOW-EARTH ORBIT



THE HONOURABLE COMPANY OF AIR PILOTS

incorporating Air Navigators

PATRON:
His Majesty The King

MASTER:
Elizabeth Walkinshaw

CLERK:
Paul J Tacon BA FCIS

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

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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.

APRIL 2026

1 st	APT/AST	APH
9 th	GP&F	APH
12 th	APFC Freddie Stringer Lunch	White Waltham
19 th	APFC Start of Season Lunch	White Waltham
21 st	Company Visit: 99 Sqn*	RAF Brize Norton
22 nd	Luncheon Club	RAF Club
22 nd	Cobham Lecture	RAF Club
28 th	APBF	APH

MAY 2026

7 th	GP&F	APH
7 th	Court	Cutlers' Hall
20 th	Company visit: 101 Sqn*	RAF Brize Norton
27 th	Company visit: 101 Sqn*	RAF Brize Norton
28 th	Livery Dinner	Drapers' Hall

JUNE 2026

11 th	GP&F	APH
16 th	Company Visit:	East Kirby
25 th	T&A Committee	APH

* Subject to prevailing military situation

Cover photos: Hawker Hunter FMk.6s of 111 Sqn Black Arrows, c1960 (RAF Museum); OneWeb low-earth-orbit constellation (OneWeb)

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...



The February 2026 issue of *Air Pilot* carried a report from the General Aviation Safety Council (GASCo) highlighting a number of areas in which safety continued to be at risk. What that did not highlight was the risk to the Council's own survival, but hardly had that issue been distributed than GASCo announced that it was commencing an orderly wind-down of its activities, leading to its closure.

GASCo was founded in 1964 as the General Aviation Safety Council, an independent forum, bringing together representative bodies from across the UK general aviation community. Its work has focused on improving safety through education, the sharing of information, analysis of accidents and incidents, and the promotion of good airmanship across all sectors of general aviation.

It has perhaps been best known over the years for its delivery of hundreds of safety evenings and seminars, under contract to the Civil Aviation Authority, but that contract was lost to a newly-established competitor several years ago. Since then, GASCo has continued other initiatives including publishing safety material and analysis, undertaking research and safety promotion work in areas such as human factors and electronic conspicuity, and supporting the CAA's just culture approach through delivery of the Airspace Infringement Awareness Course.

However, it has struggled to generate sufficient income to fund these activities and, although it has stabilised its finances in the short term, its Board has concluded that it "...no longer has a sufficiently secure and sustainable funding base to continue operating at a level consistent with its charitable purpose."

What is clear is that, while GASCo in its current form will cease to be, the need for its work is as strong as ever in many areas, as noted in our February report. That need can only increase with developments such as increasing congestion from the use of unmanned aerial systems. While there are other bodies working hard to improve aviation safety (see the report on the UK Flight Safety Committee on p14 in this issue) there is no single entity which could at a stroke absorb all of GASCo's work.

The Company was involved in the establishment of GASCo in 1964 and remains represented on its Council. It has a clear interest in seeing that its good works and contribution to GA safety are not lost, and that is the subject of ongoing discussion within the Court. Safety needs all the champions it can get.

Allan Winn - Editor

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NEWS ROUNDUP



The 2026 AGM of the Company was held on 16th March at Merchant Taylors' Hall, following the annual church service at St Michael's Cornhill. During the installation ceremony following the AGM, IPM John Denyer pronounced incoming Master Elizabeth Walkinshaw "cleared for take-off": her first actions in command were to invest IPM Denyer, Master Elect Steve Dean, new Warden Pete Taylor and new Assistants Mark Grigg and Jo Salter with their badges of office. Guests and partners of members had, in the meantime, heard a fascinating talk by John Reyntiens on stained glass.

AGM FINANCE REPORT

By Liveryman Ian Melia, Hon Treasurer

For the year ended 30th September 2025, the Honourable Company reported a significant operating surplus which compares with a marginal operating loss in the previous year. The turn-around was due to additional non-recurring distributions from a long-term benefactor and supporter of the Company. The additional distributions have been invested in the Capital Growth Fund.

Excluding the higher one-off distributions there was a small normalised operating deficit which was marginally higher than the normalised operating deficit in 2024.

from functions and ceremonies and modest increases in membership fees and investment income.

Operating expenses were 7% higher than in 2024 due to the impact of higher inflation, particularly impacting Functions and Ceremonies, and higher spending levels in a few categories such as accommodation, bank charges and IT. Price rises in the London hospitality sector continue to outpace the rate of inflation in other sectors and this trend is unlikely to abate in the current financial year.

Notwithstanding the high inflation rate, tight control on spending resulted in expense reductions or static costs for some expense categories such as Air Pilot, Advertising and Promotions, Audit, and Professional Fees.

The Balance Sheet of the Honourable Company remains



The Beadle leads the procession from St Michael's to Merchant Taylor's Hall

Capital markets were not as buoyant as in the previous year and gains on the investment portfolio were considerably lower. The net result, after accounting for the lower investment gains and deferred tax, was an overall General Fund surplus marginally higher than last year.

In detail, total income in 2025 was 21% higher than in the previous year mainly due to the generous additional distributions from the long-term benefactor. Excluding these special distributions, total recurring income was 4% higher than in 2024 with a significant increase of 19%



The Master and Wardens, l to r: The Clerk Paul Tacon, Warden Dave Singleton, IPM John Denyer, Master Elizabeth Walkinshaw, Master Elect Steve Dean, Wardens Steve Durrell and Pete Taylor, The Beadle Ted Prior

strong with net assets increasing by 4% due to the year's overall net surplus including investment gains. The major asset is the investment portfolio representing 79% of the total net assets. The portfolio comprises two funds – Capital Reserve and the Capital Growth Fund. Tangible fixed assets, mainly the investment in Air Pilots House, represent 19% of the total net assets and net current assets make up the balance.



The Assistants, l to r, (front) Eleanor Ivory, Baz Dale, Samantha Waller; (rear) Ed Pooley, Mark Tousey, Andrew Bloom, Martin Blaze, Su Ingle, Chris McGee, Jo Salter, Mark Grigg, Glen Fricker; (absent) Kat Hodge, D-J Gibbs, Seb Pooley



John Reyntiens, a PM of the Glaziers, talks to members' partners and guests about stained glass (all pics Ellis O'Brien/ellisphoto72@yahoo.co.uk)

OUTLOOK FOR THE CURRENT FINANCIAL YEAR

The Budget for the current financial year has been prepared prudently and aims for a modest operating surplus which, of course, is vulnerable to small adverse percentage changes in revenues or costs. In particular, there are major global strategic uncertainties that are generating nervousness about the economic outlook and investment market sentiment. Specifically, the rate of inflation is increasing again, and this will have an

adverse impact on this year's expenses and could impact attendance at Company events. Although the year has commenced favourably and the first five months' actual results are ahead of the pro-rata Budget, it is uncertain whether this trend will continue for the rest of the year. Based on the evidence available at this stage of the financial year, and assuming economic ramifications from the Gulf conflict are short-lived, our assessment of the financial outlook is cautiously optimistic. □

THE ANNUAL DAWN TO DUSK COMPETITION AWARDS DINNER

By Assistant Seb Pooley

On 5th February, the Royal Air Force Club played host to 78 guests for the 55th International Dawn to Dusk Competition Presentation Dinner. The competition celebrated its 60th year in 2024 and was conceived by our late Patron, the Prince Philip, Duke of Edinburgh along with Norman Jones, the then Chairman of the Tiger Club. The competition is open to all pilots and all aircraft types. You pick a theme or objective for your flight, plan it, fly it and submit a log to a team of expert judges.

Last year saw 20 entries compete for the prestigious Duke of Edinburgh trophy, the highest number since 2001 when our very own Liveryman Tricia Nelmes won the competition. Of the 20 entries, 11 were from newcomers. Entries came from Australia, Canada, Belgium and France as well as the UK. The themes were fascinating and varied, including the winning flight from Wycombe to Mont St Michel in France and on to Mount St Michael in Cornwall in a Cessna



Dawn to Dusk Diners fill the RAF Club staircase

172SP by first-time entrant Karen Locatelli who had fewer than 50h PI at the start of her Dawn to Dusk flight.

In second place, winning the Coventry Trophy, Belgian pilots Wendy Janssens and Petra van Mulders used their entry to fly a Piper Tomahawk from Liege to Welshpool to visit Petra's sister. At the time of their flight, they had

fewer than 60h PI time between them. In third place and winning the Tiger Club Trophy was a veteran of the competition, Nic Orchard, flying her trusty Aeronca Champ. Nic's entry involved her photographing properties from the air in search of her fantasy hangar home. It also celebrated the 60th anniversary of the Landmark Trust.

WORLD RECORD

Other notable entries included a Guinness World Record entry which visited 22 countries between Dawn and Dusk, an entry from Australia that followed the course of the Murray River, one that included a 10 year old (our youngest competitor to date) taking part with his grandfather and lastly the return of John Whitlock who, having turned 100 last year, was the inspiration for an entry called "One Hundred Centenaries for a Centenarian" and celebrated 100 events from 1925.

Nine of the entries included a fundraising aspect and this year a record amount of over £21,000 was raised for a number of charities including Counterpart in Australia, Cancer Research UK, the Children's Air Ambulance, the Book Trust, the Seafarer's Charity, Great Ormond Street Hospital, Fly2Help, the Oliver Curd Trust and the Coventry Air Ambulance.

The Guest of Honour for the evening was then-Master John Denyer, accompanied by Kate, who kindly presented the awards to the deserving winners. The competition has many connections with our Honourable Company. All the judges are now members - Assistants Sebastian Pooley and Katharine Hodge, Liveryman Peter Benmax as well as Freeman Ian Seager and Tim Dawson. For information on taking part in this year's competition, which closes on 30th September, go to www.pooleys.com/dawn-to-dusk/. □

INTER-LIVERY SKI CHAMPIONSHIPS

By Upper Freeman Sam Rutherford

The 2026 Inter-Livery Ski Championships went smoothly - mostly. We had another great year, winning a slew of medals with (almost) the usual gang! We took home two gold medals each (yes, each!) in individual categories for Liveryman Caro Gough-Cooper and Upper Freeman Will Fanshawe, and the team gold medal in the age and gender-adjusted category, featuring Caro Gough-Cooper, Will Fanshawe and yours truly.

The ladies also brought home a team bronze medal in their category, starring Caro Gough-Cooper, Freeman Beatrice De Smet and Associate Annie Cleve, this represented a great result against increasingly stiff competition! A huge "thank-you" to the rest of the team who gave their all but didn't quite make it onto the podium - perhaps next year! Our own Air Pilots' Trophy for 'most improved racer' went to Kirsten Burt of the International Bankers.



Annie Cleve helps the ladies to Team Bronze



The Air Pilots team - complete with aviation-themed helmet covers - before racing commenced: (Front), Caro Gough-Cooper; (Rear), Ian Plodder, Will Fanshawe, Beatrice De Smet, (hidden) Austin Hayes (guest), Annie Cleve, (hidden) Paul Smiddy

This year witnessed a little controversy when my request to add a Ladies' 65+ individual category (to match the already implemented men's 65+) was refused. After making some (a lot) of noise, I was promised that it will be included next year. We are always on the lookout for pacy pilots, so please get in touch via office@airpilots.org if you fancy your chances in January 2027! □

LUNCHEON CLUB

By Liveryman Ruth Cundy

Fifty-three members of the Air Pilots and their guests met for lunch in the Royal Air Force Club. Following grace by Upper Freeman G Bhoday, the Club Chef and his team provided a stunning steak and ale pie before the eagerly-awaited talk from Andy Richardson, entitled *Spitfire to TSR-2 in 28 years*.



Andy Richardson

Andy gave a brief history of aviation from the Wright Brothers, on through the Sopwith Camel to the formation of the Royal Air Force. It was extraordinary to learn that the RAF had over 20,000 aircraft just a year after formation – and sobering to think that today that number lies well short of 1,000.

Andy led us through the story of Supermarine which, with its chief designer R J Mitchell, had already received international acclaim for its racing seaplanes, having broken many speed records and won the Schneider Trophy no fewer than three times, thus winning it outright.

When the Air Ministry issued industry with OR Spec F7/30 for a short-range high-performance interceptor, Mitchell's flawed Type 224 was flatly rejected and the initial Air Ministry award went to Gloster with its Gladiator biplane. Undaunted Mitchell went back to the drawing-board and submitted an improved version which was also rejected. The Air Ministry, however, showed some interest and suggested a further development that was to become the Spitfire.

After the first test flight on 5th March 1936, Vickers Chief Test Pilot Mutt Summers declared it was "perfect". The Air Ministry now wanted lots and quickly - way beyond the capabilities of the relatively small Supermarine works. The timely intervention of Lord Beaverbrook brought about significant outsourcing to the motor industry, with Castle Bromwich becoming the most successful of all third-party builders, albeit eventually managed by Vickers. At peak production, over 300 aircraft a month were manufactured at Castle Bromwich – accounting for over half of all the combined production total of 20,351.

"WOODEN WONDER"

Andy then focussed on the De Havilland Mosquito, affectionally known as the "wooden wonder" and rudely described by Lord Beaverbrook as "Freeman's Folly" after AM Wilfred Freeman's vigorous backing of it. The Mosquito would become the first true multi-role combat aircraft and could even outrun a Spitfire. In total 7,800 were built, serving the RAF until final retirement in 1963. The Brabazon Committee was established by Churchill in 1942 and from its recommendations, several commercial

projects were established. The Bristol Brabazon, the largest all-British airliner ever built, was underpowered even with eight Bristol Centaurus engines and had a capacity of just 96 passengers travelling in almost ocean-liner luxury. The Bristol Britannia had the potential to be great but technical problems and indecision by BOAC never gave it a real chance. Andy led us through the Vickers VC10 and Viscount, De Havilland Comet and Trident, and the BAC One-Eleven. The apparent indecision by BOAC and BEA managements of the day added to cost, timescale and discouraged potential international customers.

Returning to military jet aircraft, the English Electric Canberra, a first-generation jet-powered bomber designed back in the late 1940s as a replacement for the Mosquito, made its first flight on 13th May 1949. The RAF received 782 of the 1,350 manufactured, some remaining in service until 2006.

BIRTH OF TSR-2

The Canberra replacement programme started in 1956 with OR 339 calling for a supersonic all-weather aircraft with a top speed of more than M2.0 (M1.2 at low level), able to fly the final 200 miles to target at 250ftAGL at supersonic speed. To achieve this would require some of the most advanced avionics that had ever been envisaged including a terrain-hugging radar. The Government had directed there be industry collaboration and English Electric and Vickers were chosen to offer their joint designs which they did in July 1959.

A year after the launch of the TSR-2 programme, Duncan Sandys produced his infamous White Paper calling for a cull of manned military aircraft. The TSR-2 survived but the industry had been damaged, and BAC was formed and would now be running the programme with strict government oversight and indeed massive interference. A classic example was the Government insisting that the Bristol Olympus 22R be used in TSR-2 whereas George Edwards, then Chairman of BAC, and his team wanted to use the Rolls-Royce Medway, which was lighter, smaller and more powerful.

Brooklands, the home of Vickers, was to be the final assembly centre but TSR-2 could not even be ferried from there. The Government decided that it should be ground run at Brooklands then partially dismantled and transported to Boscombe Down where it would be re-assembled for test flying. The first test flight following delays was flown on 27th September 1964. By the tenth flight, most of the initial problems had been overcome and the aircraft was flown to Warton from where testing could continue.

By now Labour had won a landslide victory having promised in its manifesto to scrap TSR-2.

Dennis Healey, very much against the programme, told a meeting of the Cabinet that: "I have been informed that there was yesterday a total and catastrophic failure of a wing from the TSR-2." He failed to mention that this was a deliberate test to identify the strength of the wing and that the test had exceeded requirements. Healey's Budget speech of 6th April 1965 announced that the Government would terminate the TSR-2 programme with immediate effect and had secured a deal with the USA for Britain to acquire the General Dynamics F-111.

George Edwards was effectively silenced by the Government. As Sir Sydney Camm put it: "All modern aircraft have four dimensions: Span, Length, Height and Politics. TSR-2 simply got three right". It then became evident that the F-111 programme was also suffering, so much so that the US Navy cancelled its order and if Britain wished to continue down the F-111 route it would have to bear additional development costs.

Since then, all RAF and Royal Navy combat aircraft have been either joint ventures with, or wholly purchased from, other countries. All those wonderful aviation companies that swallowed each other in various mergers, becoming the BAE Systems of today, now build our aircraft carriers but none of the aircraft that fly from them!



The Spitfire ended up as an unparalleled success... (BBMF)

...whereas the TSR-2 story ended in ignominy (Brooklands Museum collection, copyright unknown)



The Master, John Denyer thanked Andy for his well-illustrated and very informative chat: the next meeting of the Luncheon Club will be on 22nd April, when Liveryman Annalisa Russell-Smith, Chief Strategy Officer of Flyby Technology, will speak. □

AIR PILOTS' VISIT TO HMS PINAFORE

by Assistant Mark Grigg

A wonderful afternoon was had when the Master, 19 members of the company, partners and guests visited The Coliseum, home of the English National Opera, to see a jolly production of Gilbert and Sullivan's *HMS Pinafore*, buoyed by guest performer comedienne Mel Giedroyc.

We were guests of Assistant Mark Tousey, who arranged a fabulous visit. The afternoon started with a fascinating Front of House tour, where we learnt about the history and architecture of the building. Conceived by impresario Oswald Stoll, the theatre was designed by Frank Matcham and opened in 1904. The Coliseum is the largest theatre in the West End of London and was built in an 'exuberant free baroque style'. It originally staged variety performances and spent time as a cinema before becoming the home of Sadlers Wells Opera, latterly the English National Opera (ENO).

After the tour we retired to a private room where we were fed and watered before taking our prime seats 'on deck' and enjoyed an amusing and spirited musical satire. The various targets of that satire were the class system, the Royal Navy and political favours. I had previously



A spirited performance of *HMS Pinafore* ended the Air Pilots tour

attended another Company visit to The Coliseum, organised by Assistant Mark Tousey and it inspired me to become a Friend of the ENO. The ENO has a mission to make opera accessible (it's sung in English with surtitles) and it also offers free tickets for under 21s. □



MASTER'S MESSAGE

By The Master, Elizabeth Walkinshaw

I am writing my first Master's Message before I have been installed as your Master, but that event will have happened by the time you read my words, and I am delighted to have this opportunity to write about my year ahead.

My installation will have taken place in March, just three days before my birthday - a lovely present. I am delighted to be elected as Master and I would like to emphasise how privileged and honoured I feel to have this position bestowed on me, as only the second female Master of the Company in 97 years. I am extremely keen to serve the Company well and look forward to my year.

I have a passion for flying and everything associated with the world of aviation. As Master, I look forward to giving my time, enthusiasm, and dedication in combination with my knowledge and experience, and I will do my best in my position as Master and Ambassador for this International Company. Of course, every Master has been different, and I will be no exception!

As a long-time helicopter pilot, one of my focuses will be to encourage more knowledge of these aircraft, and to encourage more helicopter pilots to join the Company. Helicopters play important roles such as Air Sea Rescue and Air Ambulance and in all three Military services. January 2026, saw the first flight of the UK's fully autonomous, full-size helicopter, the Leonardo Proteus, and for the first time Royal Navy helicopters used live data from multiple drones to target a moving vehicle. New drones will pair up with Boeing Apache attack helicopters, with Industry partnering with Defence to shape future of autonomous weapons systems.

IMPROVING RELATIONSHIPS

I would like to see our relationship with all sectors of aviation maintained and improved. Our Company is unique in the aviation world as being one for all aviators – commercial, military and general aviation – so it is particularly important that we continue to build these relationships.

Another focus is our relationships with all three Armed Services and our affiliated units. Our interaction with all the Forces is strong and I look forward to reinforcing this involvement. Our Affiliated Units are very special, and I want to strengthen and enhance these relationships. Being

the Red Arrows Liaison officer has been such a delight over the last few years and, as Middle Warden, looking after the Liaison Officers and learning about the Affiliated Units has given me a passion to do more.

The aviation Industry is vital to the economy and prosperity of the UK, and our Company is valued for the expertise and independent opinion that it provides. I will do everything possible to maintain and further improve our reputation with the industry and profession and to strive to promote our great Company, and thus demonstrate to all what we and the aviation industry have to offer.

The Honourable Company is not only the largest livery company, but also the envy of many others because of our regional network. Our Regions will remain an important focus of my attention, and I will look forward to visiting them later this year and learning more about them and their activities.

Safety is always a priority and my time as Board member in the General Aviation Safety Council has emphasised this, being able to help to educate GA Pilots. Safety is paramount in all spheres of aviation, as highlighted by the near disaster of an airliner trying to take off on a taxiway recently. I would like to see a closer interaction with the airlines. There is still the trend for pilot training schools



Hearing Dogs for Deaf People is one of the Master's charities to fold, so more attention is needed to try to avoid this. Airspace squeezing is of concern alongside the ever-increasing number of airfields closing. One positive story, however, is the latest news on RAF Scampton, where the airfield will not lose its heritage and its important history will be protected.



Providing helipads for hospitals is the aim of The County Air Ambulance Trust HELP appeal

FOCUS ON WOMEN

Naturally, I am keen to encourage women in aviation. We have a good percentage (10%) of women in the Air Pilots but there are so many talented women out there who need to be encouraged to become members. We have some excellent women coming through as Assistants and I do hope they will step forward to become Wardens. It would be good not to have to wait another 12 years for another female Master! There is much good news about women: we currently have a Lady Mayor of London, the first female CO of the Red Arrows, the new CO 824 Naval Air Squadron Culdrose, and numerous Livery Masters to name just a few.

'Youth today is the future of tomorrow' is a well-worn cliché but it is also the future of our Company. Our wonderful scholarships give the foundation for future pilots as evidenced by an email I recently received from a former Gliding Scholarship winner saying that he remains extremely thankful for the opportunity it has provided him, and especially for the encouragement and support he received from me. Similarly our school gliding days give inspiration to many as illustrated by one of the participants, who commented to me that the day was the best she had had in her life. Comments like that make it all so worthwhile. Our scholarships now include ATPLs which is great news and, of course, there is always room for an ATPL(H) which I would be delighted to see. A great new scholarship scheme has been launched in the North America Region which is fantastic and will be rolled out in Canada in the next 12-18 months.

There is ever-increasing innovation and presence of unmanned aerial vehicles, and this should be a focus for our future, along with space where there is so much being

done. So much development is occurring with drones and UAVs, and, for example, a new laboratory has recently been set up in Oxfordshire that will help develop and test space satellite engines.

It is important, also, to strengthen and maintain our presence and liaison with the City of London Corporation, the Mayor, Sheriffs, Aldermen and other Livery Companies. Maintaining this interaction involves a good deal of time for the Master.

THANKS TO ALL

My huge thanks go to IPM John Denyer, who has had a fantastic year as Master, and to his Consort Kate. I must also thank John for his support and help. I am looking forward to my year with a strong GP&F and congratulate the Master-Elect, Steve Dean, 'baby' Warden Pete Taylor, and new and returning Assistants. Thanks, too, for all the help from the Clerk and secretariat, the Past Masters, DAA, Editor, Archivist, David and Visits team, Treasurer, Chaplain, Beadle and, of course to all the members and all the volunteers.

I have had such support and friendship since becoming a member and want to thank all for their support. It doesn't matter who they are or what title they have, I have found they are always happy to advise and help. I want to make sure that this is the same experience for all.

I am keen to encourage all members to become more involved, and to play my part in making members of the Company fully aware of the range of opportunities available through their membership. I would like to encourage all members to attend as many of the wonderful events and visits as they can in my year. There is much on offer, from the Luncheon Club with superb after lunch talks, the annual Tymms and Cobham lectures, the opportunities provided by the Flying Club, to the 'money can't buy opportunities' of the visits. Of course, I would also be delighted with your support this year for the Livery Dinner and the Trophies and Awards Dinner -and please don't forget my Garden Party on 13th June at Denham airfield. It will be a wonderful day, even though I say so myself with, hopefully, one or two surprises!

My Master's charities for the year will be The County Air Ambulance Trust HELP appeal (www.helpappeal.co.uk) which funds construction and upgrades of lifesaving helipads at major trauma centres and hospitals across the UK and, because so many pilots suffer with hearing loss, Hearing Dogs for Deaf People (www.hearingdogs.co.uk).

I know a year is not long but, with your help, we can make a difference. Please look forward to year with a woman's gentle touch but with strength, positivity and good humour to back it up. □

REGIONAL REPORTS



Regional report: North America

By Freeman Hal Adams, Chairman



Since the beginning of human flight, aviation communications methods and processes have been impacted by an enormous and continuous process of improvement. Coordinating civil and military operating comms across all countries into one seamless capability is an astounding achievement, thanks to entities like ICAO. Failure in harmonising comms can lead to dire consequences, as with the recent Washington DC mid-air collision between a regional passenger aircraft and military helicopter.

A prime attempt at long-range comms harmonization is high frequency (HF) voice comm. HF services are used normally over oceanic and remote regions where VHF (Very High Frequency) radio coverage is unavailable. Commercial HF data link (HFDL), in particular, was a difficult capability for the civil aviation industry to use, adopt and standardise. HF voice had, and has, significant issues with atmospheric interference in areas such as the Indian Ocean. I recall listening in on HF comms when on the flight deck during a long-range airline flight. The Boeing 747 was equipped with my company's HF radios, which had a very good reputation. However, on this flight we had difficulties establishing and completing ATC position reports because of HF atmospheric interference. There was no automatic link establishing (ALE) capability at that time, just the flight engineer. (Admiral Richard Byrd used same company's very early HF when flying over the South Pole in 1927 and reported similar issues.)



The way comms were - US Women's Air Corps personnel using teletype in World War Two

I recall initial attempts to adopt military HF data services such as ACARS, ADS-C, and CPDLC to civil use, when out of range of normal VHF Air Traffic Control (ATC) comm. Operated primarily by ARINC, connectivity is via HF radio waves to connect aircraft to ground stations, this system of systems helps ensure continuous, automated data exchange for flight management. Some definitions may help:

HF ACARS – Aircraft Communication and Reporting Services: the digital data link for message transmission between aircraft and ground;

HF ADS-C - Automatic Dependent Surveillance

– Contract: data link reporting agreement used for reporting, and coordinating with ATC;

HF CPDLC – Controller Pilot Data Link Communications: data communication between aircraft and ATC using text messaging, both formatted and open texting.

BACK ON THE GROUND

The aircraft "office" is not the only place where communication has experienced problematic issues. The aerospace business office is not immune, either. Around 1980, I was tasked with re-opening a major aerospace entity's office in Hong Kong after a 10-year absence. Initially all we had was fax and telex. I was able to introduce computers and data comm after about a year, at which point we could finally get a "data" (ssllllloooowwww!) line from Hong Kong Cable & Wireless. Yes, a very slow analogue service line, cleverly disguised as a "digital line".

When I first arrived to re-establish that office, most Asia Pacific countries were without access to even basic digital comms. When traveling to India at the time, usually the only comms might be a hotel telex machine. Our resident representative in India was fortunate to even have a phone that had domestic access only. To place a phone call, domestic or international, I had to book the call via the hotel several days in advance. There was no chance of having a fax line as international connectivity (voice or data) was patchy or non-existent, except at the USA embassy in New Delhi. Since I was not a US government employee, I had no chance of using its comms.

However, that was the norm for non-aircraft comms of that time and region. In the 1980s and 1990s aircraft comms, both voice and data, were making good gains in connectivity. While we have made dynamic changes to the aircraft comms platforms, we are still dependent on the ground systems to translate those gains into useful dynamic tools.

The adoption rate for new solutions is still dominated by the certification process and user procurement finances, with all this having a slowing effect on adoption of new aircraft and traffic control technology. I have lost track of how many times the non-aviation "tech" people make comments about aviation tech adoption being at the speed of a turtle on an iceberg! Those comments would usually stop when reminded that you do not usually ride your laptop to a business meeting or holiday and if your laptop fails, the drop is not far... □



Regional report: Australia

By Liveryman Adrian Young, Chairman

The Australian Region moved through a busy and important period in the last couple of months, with a strong focus on governance delivery, member engagement and the continued growth of the scholarship programme. There was a clear sense of momentum across the Region, with several initiatives reaching key milestones while new activity also began taking shape for the months ahead.

A major focus during this period was the Australian Region Annual General Meeting held on 10th March. Following approval by the Court in London, the revised Australian Region Constitution was released to members and put forward for a Special Resolution vote. This work marked an important step forward in modernising how the Region operates, clarifying roles and decision making, and ensuring that the Australian Region is well positioned for the future. Member engagement around the AGM was strong, and members were encouraged to consider nominating for Council roles to help sustain leadership capability and delivery across the Region.



Gliding scholarship winners Arlo Foxlee, Kira Mack and Elijah Dunks

Closely linked to the AGM was the launch of a new and important tradition for the Australian Region: the Australian Region Dinner, held on the evening of the AGM. The event brought together more than 50 guests, including members, Young Members, representatives from aviation education organisations, and colleagues from across the broader aviation industry. The dinner saw the delivery of the inaugural Jim Cowan Memorial Address, established to honour the founding Chair of the Australian Region and to celebrate leadership, professionalism and service in Australian aviation. Capt Mark Cameron – Executive Manager Qantas Group Operational Safety – delivered the first address, sharing his insights on aviation safety and operational risk. The event was widely regarded as a successful and meaningful addition to the Region’s calendar, strengthening connection, visibility and engagement across the aviation community.

SCHOLARSHIPS

One of the most energising areas of activity for the Australian Region has been the conclusion of the most recent round of scholarship nominations, which attracted the strongest level of interest seen to date. More than 100 applications were received across the GA Ready, UPRT and Gliding scholarship categories, making the selection process highly competitive and reflecting the growing reputation of the Australian Region scholarship program.



GA Ready Course in Darwin: Ashja Rehman and Loviisa Majuti

From this outstanding field, seven scholarship recipients were selected, and the Region is pleased to announce those award winners. These young aviators strongly reflect the Company’s values of professionalism, safety and airmanship. As recipients commence their training, the focus shifts to scholarship delivery, follow up engagement, and sharing outcomes with the wider membership. The programme continues to play a vital dual role - directly improving aviation safety and capability, while also strengthening the Company’s connection with the next generation of aviation professionals. The Region extends sincere thanks to Flight Standards, UPRT Australia, and the Air Pilots members who supported the interview and selection process.



UPRT course, Brisbane: Joel Noble and Phoebe Parker

Building on this momentum, the 2026 Australian Region scholarship programme is now underway. Preparations are progressing across multiple scholarship

streams, with nominations already open and award recipients to be reviewed in May. Members are encouraged to promote the programme within their networks as the Region continues to invest in developing future aviation leaders through this flagship initiative. It was also a proud moment for the Australian Region to





Liveryman Roger Lang OAM (r) with Upper Freeman Jim Whalley AM (l)

and generosity that sit at the heart of the Honourable Company, and the Region warmly congratulated Roger on this well deserved honour.

recognise Liveryman Roger Lang, who was awarded a Medal of the Order of Australia (OAM) in the 2026 Australia Day Honours for significant service to the community through charitable organisations. His recognition reflected the values of service

Alongside these internal activities, the Australian Region has continued constructive engagement with senior aviation stakeholders across government, regulators and industry. Areas of focus have included airspace reform and modernisation, emerging technology risks, workforce sustainability, and mental health as a critical safety issue—reinforcing our role as a respected and independent contributor to aviation safety and professionalism.

In summary, the Australian Region progressed through this period from a position of strength. With key governance decisions addressed, a new flagship event successfully launched, scholarship recipients commencing their journeys, and the 2026 scholarship programme already underway, the period was defined by delivery, engagement and continued forward momentum across the Australian aviation community. □

GAZETTE APPROVED BY THE COURT 12 MARCH 2026

ADMISSIONS

As Upper Freeman

Andrew COE
Charlie COODE
Bryce Daniel MCCABE (HK)
Christopher Millar MONEY
Paul Nolan OBORN

As Freeman

Marion Jacqueline MARSHALL
Lewis Peter Thomas ANDERSON
Ian Vaughan STAINES
Daniel Harry VINCENT-PARKER

As Associate

Rayan Sarim AKHTAR
Felix (Wing Chun) CHAN
Patrick David CONDE
Carl COX
Rochelle ERASMUS (AUS)
Sau Ying HO (HK)
Xia HUA (HK)
Pranav KANT
Mohammed KHALIL
Kishan Kumar Pankaj MISTRY
Langcheng LI (AUS)
Andrew MORRIS
Phoebe PARKER (AUS)
Bilal SAYAN (AUS)

Brandon Rhys WOODHEAD
Fariba YAWARI (AUS)

ACKNOWLEDGED BY THE COURT 12 March 2026

REGRADE

As Liveryman

John DEECKE (AUS)
Paul FRAMPTON
Peter McCARTHY (HK)

As Freeman

Keighley HORSTEAD

RESIGNATIONS

Sandeep ADHIKARI (AUS)
Jonathan BAKER
Felix CHARLESWORTH
Aaron CLARK (NA)
Christopher COOPER
Michael EVANS (AUS)
Peter GELDARD
Rowan GOFF
Craig GRANT (AUS)
Donald GREEN
Evan MEWETT (AUS)
Joseph MORRIS
Barry SADLER (AUS)
Paul SENTES (NA)
Michiel SMIT (OS)

David SPAUGHTON
Neil SWANCOTT

James VAUGHAN-HITCHCOCK
Peter WALKER
David WEBB (NA)

FORFEIT ALL BENEFITS

Nancy BINDER (NA)
Francis ERVIN (NA)
Richard RHODES
Faith RICHES
Belinda SCOTT (NA)
Ritchie SKELDING (OS)

DECEASED

James BLACK
Nadine COBHAM
Peter FOX
Maurice HYNETT
Glen JAMES
Harold WALTON (AUS)





THE UK FLIGHT SAFETY COMMITTEE

From the Desk of the DAA, PM Nick Goodwyn, and Rob Holliday, CEO, UKFSC

The Strategic Priorities of the Air Pilots are identified each year in the Company's Business Plan. They include increasing the Company's reach and influence, especially internationally and ensuring a safe and sustainable operating environment for aircrew. One key way in which we achieve this is by positioning ourselves within the industry as a source of expertise, knowledge and meaningful comment on flying-related issues. Commentary and/or advocacy on specific issues is continuously developed in order to be effective and meaningful.



'Positioning' is a major function of the International Technical Forum and principally achieved through ITF activities and output, although advocacy or 'public commentary' is co-ordinated through the GP&F and Court. Open and frequent dialogue at appropriate levels within important industry organisations

is maintained such as the DfT, UK CAA, the UK Flight Safety Committee (UKFSC), CHIRP and the NATMAC (National Air Traffic Management Advisory Committee). The Air Pilots is a long-standing member of UKFSC, and many of our members continue to contribute significantly to it. Rob Holliday, its Chief Executive, looks at the history, current role and future of the UKFSC.

WHAT HAS THE UKFSC EVER DONE FOR US?

Anyone familiar with *Monty Python's Life of Brian* will recall that immortal rant:

"All right, but apart from the sanitation, the medicine, education, wine, irrigation, roads, freshwater system, and public order... what have the Romans ever done for us?" In the same vein, what has the UKFSC ever done for us?

Well... apart from being a national hub for aviation safety collaboration, providing a unique cross industry network, running award programmes, hosting safety exchanges, building digital libraries, creating ambassador opportunities, producing weekly and quarterly safety publications, and safety management training... what has the UKFSC ever done for us?

One of the biggest misconceptions embedded in our very name is that we're just another aviation committee, a group of well meaning people sitting around a long table, producing minutes that fewer than six humans will ever read voluntarily.

However, the UKFSC isn't a committee. It's a community - a living, breathing, sharing, occasionally caffeinated, ecosystem of aviation professionals who bring knowledge, experience and curiosity from every corner

of the industry. It's airports, airlines, ANSPs, regulators, manufacturers, training providers, ground handling organisations, helicopter operators, business aviation, military partners, emergency services, all in one place, all learning together. That's not a committee; that's a force multiplier for safety. At the heart of the UKFSC is a simple belief: When the industry shares, the industry improves.

Just as US President John F Kennedy urged a nation to look beyond what it could receive and instead focus on what it could give, we don't just ask members to show up. We ask them to share, to be proactive, to bring forward experiences, hazards, lessons, trends, questions, concerns, even mistakes.

Safety doesn't happen by hiding our embarrassing moments; it happens by holding them up to the light so someone else doesn't repeat them. In return, members learn from each other and from the global safety ecosystem that feeds into our network. This reciprocity is the UKFSC's oldest superpower. It's a kind of aviation karma: give something useful, receive something even more useful.



Focus is UKFSC's in-depth magazine

The UKFSC was established in 1959 by the Ministry of Transport at a time when commercial aviation was rapidly expanding and regulatory oversight was still in its infancy. By 1961 the flight safety committee, was fully independent, continuing its mission to strengthen safety across the industry. Moving into the 21st century it had thriving, well-attended in-person meetings. Then the world changed.

THE COVID-19 EFFECT

Let's be honest: Covid-19 did a number on in person attendance across the entire industry. Work patterns changed, budgets got tighter, people became accustomed to the convenience of joining a meeting from a desk chair in pyjama bottoms.

The silver lining was that Covid-19 accelerated digital adoption. The UKFSC seized the opportunity: more online focus groups, more virtual Safety Information Exchanges, more webinars, and more on demand access to digital content. Rather than trying to drag the world back to 2019, we embraced the digital world: hybrid, flexible, accessible, and globally connected.

One of our greatest industry contributions is our wide



ranging stakeholder network. If aviation safety were the Monty Python universe, we would be the organisation that somehow manages to get the Judean People's Front, the People's Front of Judea, and the Judean Popular People's Front into the same room and have them actually agree on things.

To make this network functional, the UKFSC runs operational area-specific focus groups, each dedicated to domains of aviation - Fixed Wing, Rotary Wing, Cabin Crew, Ground Handling, Engineering, ANSPs and Airports. These groups are not talking shops, they are high value knowledge engines, feeding real issues from real operations into actionable safety understanding. It's where "I wonder if anyone else has seen this..." becomes "Here's what three other organisations learned about that exact issue."

EXCHANGING INFORMATION

Our quarterly Safety Information Exchanges (SIE) are the beating heart of sharing. Four times a year, the entire UKFSC community gathers, in person and online, for the SIE. These meetings are consistently cited as the most valuable cross industry safety forum in the UK, the easiest way to stay plugged into emerging risks, and one of the few places where managers, front line teams and safety leaders hear from each other *without filters*.

We realise that not everything needs to be said in a meeting. Sometimes you just want to go online, type a keyword, and find a best practice, example procedure or guidance document immediately. So, we created a digital SMS Library, a growing repository of templates, guidance, case studies, process maps, risk assessments and good practice examples - a "safety brain" available 24/7.

To further the digital availability of safety knowledge, we built two searchable online libraries: the Focus magazine library, with decades of safety magazine issues; and the weekly safety news library, our widely respected weekly publication archived and available to members.

As part of the commitment to developing the next generation of safety professionals the UKFSC Safety Officer SMS Course delivers a focused, three day introduction to aviation safety, blending expert instruction with practical scenarios and principles applicable across all operational domains. With contributions from guest speakers and an always popular Air Accident Investigation Branch (AAIB) tour, the course equips safety professionals from any discipline with the essential skills and insight needed to strengthen safety performance. The course is open to all; places can be booked at: <https://buytickets.at/ukflightsafetycommittee>

Captain Mike Griffin was the UKFSC Chairman between 1988 and 1992, representing Bristow Helicopters: the Mike Griffin Award is named in his honour, historically recognising individuals for making extraordinary contributions to safety, but now given to help individuals on their safety career journey, the winner receives a

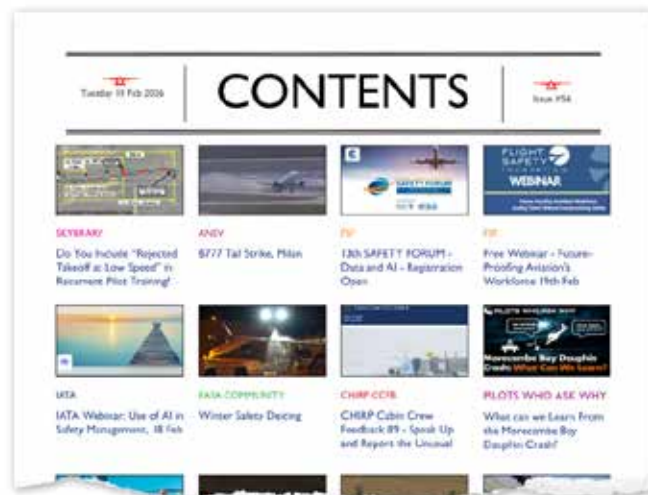
Cranfield University short course, fully funded.

NEW DEVELOPMENTS

The UKFSC is regularly represented at global safety conferences, and its new Ambassador Programme offers an opportunity for members to take that role with expenses paid. Ambassadors will promote the UKFSC and bring back insights, intelligence and connections that feed directly into the wider community. Adding webinars to our portfolio is a natural move in the digital revolution, allowing participants to attend from anywhere, replay anytime and engage in real time.

Traditionally, the UKFSC has been an organisation level membership body, representing companies rather than individuals, but something interesting has happened. As our online presence has grown, through digital publications and LinkedIn activity, more individuals have come forward asking "How do I be part of this?"

It appears that the internet democratises knowledge, and knowledge-seekers are finding us. While UKFSC remains an organisation based membership community, it is clear



UKFSC also produces a weekly safety newsletter

that the future is expanding, and individuals increasingly want to be part of the safety conversation.

So... what has the UKFSC ever done for us? Well... apart from: being a cross industry safety community, enabling proactive sharing, providing unparalleled networking, running operational focus groups, hosting quarterly Safety Information Exchanges, offering digital SMS resources, maintaining searchable libraries of publications, supporting careers through the Mike Griffin Award, funding members as UKFSC ambassadors, delivering webinars on essential safety topics, providing safety management training and democratising safety knowledge through online presence - actually, quite a lot.

Air Pilots who are interested in getting involved with the UKFSC, applying for the Mike Griffin award or interested in bidding for one of our places on the FSO Course can contact the DAA (daa@airpilots.org) for further information, or follow UKFSC on LinkedIn. □



REPORT: THE YOUNG AIR PILOTS

By Associate Chris Barrott, Chairman

Spring sees the return of some of our staple events for the Young Members and the excitement of a new committee year. By the time you read this, the new committee will have been formed and will be getting stuck into the exciting projects for 2026. I'd like to thank every member of the committee in 2025 for their support in helping us grow and strengthen YAP, in what I believe has been one of our best years for some time. Thank you, Upper Freeman Craig Jardine, Freeman Keighley Horstead and Associates Hannah Whelan, Omar Mshihadani, Avi Anant, Tilly Watts and Piers Austin-Foss. . This extends too to the numerous other helpers who have generously volunteered time for tasks ranging from social media to the promotions stand. We couldn't do it without you.

CHRISTMAS 2025 AND WINTER ACTIVITIES

The year 2025 ended with a bang at our Christmas social. This was, outside the T&A Banquet, our best-attended event in years with nearly 50 members gathering at the RAF Club. Canapes, drinks and light-hearted networking was enjoyed, before some continued long into the evening in London. It was brilliant to see so many of you enjoying the night and it's certainly the kind of event we will look to repeat next year.



The well-attended Christmas social

Despite horrible weather for flying, the social momentum continued with an informal darts night at Flight Club which proved very popular, and our first aviation-oriented event of the year at University of West London Future Pilot Careers Event. There was a heavy YAP presence all over the event; from the promotions stand to leading breakout sessions in the adjacent classrooms, ranging from group exercise preparation to CV development workshops for a keen cohort of aspiring pilots. Similarly, shortly after, in early February the first instalment for this



A big turnout for future pilot assessment (pics by Chris Barrott)

years' Future Pilot Assessment Day (FPAD) was another great success. Once again, YAPs generated and delivered this content to some great feedback from the attendees. More dates for FPAD are to be announced shortly. We are also looking to train more members to deliver content for breakout sessions and at FPAD. If this is of interest to you, please get in touch with me or Will Wright.

At the end of February, we enjoyed a brilliant visit to the FlightPad sim at the University of West London. Nine YAPs enjoyed three hours of simulator time on the 737, for less than £10pp. While not flying, career development workshops were run, with a pub social afterwards. For those who missed out this time, we certainly plan on running more of these events. Thank you again to the generosity and help from YAP Associates Priyan Patel, Umar Khan and Eva Golubinska for running the simulator for us.

UPCOMING EVENTS

The events calendar for 2026 is building quickly. A date has been set for the first fly-in of the year: Sywell on 11th April. The ever-popular Pilot Careers Live returns on 18th April and we need more volunteers for the stand. Just get in touch with me to put your name down. We are also trying to put together a larger YAP cohort for the Luncheon Club and Cobham Lecture on 22nd April at the RAF Club. At the last Luncheon, four YAPs enjoyed attending, and we hope this is the start of bigger cohorts going forward. By the time this is on your doorstep, I expect dates to be set for our summer gliding evening and BBQ, as well as our professionals social in London, which will take us well into the early summer months.

As we now enter a new committee year, feedback and suggestions are as welcome as ever. Anything in particular you'd like to see? Just let me or any of the other committee members know via WhatsApp or email youngmembers@airpilots.org. Let's have a great 2026! □



PROFILE: THE MASTER, ELIZABETH WALKINSHAW



The new Master, Elizabeth Walkinshaw, has had an interesting and distinguished background and life. She was named after the late Queen Elizabeth II. Her father was an officer in the Royal Navy. She was privileged to have been christened in a ship's bell, a naval custom symbolic of welcoming the individual into the Navy family, and which is believed to bring good luck and life to the ship.

Elizabeth feels it has also brought her good luck.

She spent her first few months in Malta while her father was an Officer on minesweepers in the Mediterranean. The family returned to Scotland where she was educated in Linlithgow and Edinburgh.

Elizabeth's brother, Cdre Simon Kelly, had a distinguished 28-year Royal Navy career during which he commanded mine hunting ships in the Gulf, the anti-submarine warfare frigate HMS *Westminster*, and the UK's High Readiness Amphibious Assault ship HMS *Albion* which included Task Group Command of UK Littoral Strike Group. He rounded off his career as the Deputy Commander of the Royal Navy UK Strike Force.

Elizabeth herself has had a varied career. She worked first as a computer programmer and analyst, in the days when there were very few women in the industry. Working for a software house near Heathrow, she learnt all about the use of overbooking as a norm in the airline industry. In perhaps a sign of what lay ahead, she used to spend her lunchtimes watching the aircraft at Heathrow.

In her younger years, she spent many hours at race circuits supporting her husband's racing, sitting on the pit wall timing the cars. During this time, she spent several nights, into the early hours, at race circuits, sleeping in the car or on chairs. She was a director of her husband's company which specialised in motor racing and engineering. She supported her husband at race circuits while he was still racing, and later when he was running teams, accompanying him and his teams to many race circuits over the years.

HORSE POWER

Additionally, she owned and ran her own large, very successful horse breeding and competition business. She had always loved riding and horses. Beginning with

just one horse, the number quickly multiplied when she became involved in the horse show and breeding worlds. She gained her HGV licence to drive the horse boxes, and she keeps it up to date to this day. She also enjoyed riding side saddle. In her time, she has also owned a herd of breeding Highland Cattle.



Riding side-saddle at the Royal Windsor Horseshow

Elizabeth built her new business from scratch, and at one time, with seven stallions and 40 mares, she owned 180 horses. There were many winners and champions, and one of her dressage stallions was long listed for the Olympics. The stud was innovative and bred horses to cover all aspects of competition. She even had a field with a flock of ostriches! She had 16 employees and prided herself in helping to develop the next generation of young people.

After 15 successful years in the horse business, Elizabeth decided, the time had come to close the Stud, known as Broadstone, and concentrate on something else. This prompted tributes like: "The loss of Broadstone will have a big impact on the breeding industry- the stud produced some lovely horses."



Early helicopter experience, with the TWR Squirrel

Having been involved in that world for many years, naturally, one of Elizabeth's interests was motor racing. From Sir Jackie Stewart being best man at her sister's wedding, to meeting, when she was 17, her husband-to-be who was a single-seat racing driver at the time, she came into contact over the years with so many of the famous names in motorsport.

She has been involved with the Women's Motor Racing



Wing-walking in aid of the Royal Air Force Association, 2024

Associates Club for many years. Over the years, the Club has raised millions of pounds for many charities, including the Air Ambulance. Elizabeth became Chairman of the Club and played a very active part in all Club activities.

Elizabeth's son Fergus is also involved in motor racing and engineering. He became the first Motor Racing Ambassador for the Association of Air Ambulances, promoting its slogan 'Support your Local Air Ambulance'. She also spent time helping him with his company and at race meetings. Sometimes she would also get her hands dirty, helping to carry out tasks like bleeding the brakes on a car, high up on the ramp!

Always willing to involve herself in helping raise money for charities, Elizabeth has participated twice in the Beaujolais Run and went wing-walking in 2024 in support of the Royal Air Force Association. She enjoys unusual activities and has ridden up front in the cab of a steam train on the Durango & Silverton Narrow Gauge Railroad, and roller-coasted back down in the maintenance patrol car.

INTO HELICOPTERS

She became actively involved with the aviation world when her husband did not want to see her become more actively involved on a racetrack and suggested she learn to fly helicopters. She had loved helicopters ever since her first rotary flight at Thrupton airfield. Instead of first learning to fly light aircraft, Elizabeth started her training on turbine engine helicopters in 1985 and gained her licence in 1986 at Oxford airport, in a Bell Jet Ranger. She has continued to keep her licence going for just under 40 years. There were, apparently, only eight qualified women private helicopter pilots at the time she qualified.

She recalls her first solo with the ballast bag in the passenger seat, and her thoughts at the time: "I have taken off and I am up here now so I will just have to get on with it and land!" She met one of her old instructors, by chance, a couple of years ago and asked how he remembered her. He said she had carried out the smoothest landing he had seen! She was fortunate that she was able to fly her husband's Aérospatiale Squirrel and Augusta 109, and she has continued to fly the Squirrel. As she recalls: "It was a great way to travel to race circuits and horse shows". Flying helicopters gives her a great feeling of joy and accomplishment every time she flies. She says it must be her adrenaline rush! At the end of every flight, she appreciates the challenges that each flight has brought, and always with a big smile on her face.

In recent years her opportunities to fly have reduced because of other demands on her time, but she has been lucky to have been able to fly frequently with one of the pilots from the Royal flight, Capt Nick Kidd CVO, who was an instructor and examiner, and who always challenges her during flights. Elizabeth says she must have practised all the emergencies more times than most! Nick has remarked that he has subjected her to a grilling on each flight and, to quote: "On that score I must praise her for remarkably good flight path judgement. It would be very unusual for her not to arrive safely in the chosen field in response to



Trying an iron horse for a change, on the Durango & Silverton Railway in Colorado

a practice forced landing." He says that, despite her low annual flight hours, she has managed to tame the "shrew", or should one say, "squirrel".

Elizabeth has greatly enjoyed honing her skills over many years and is keen to promote the joy of helicopter flying. Talking about some of her favourite experiences, she says



Embracing City activities, at the Lord Mayor's Show in 2022, with now-Warden Steve Durrell and now-PM Jonathan Legat

that she always gets a buzz from using the helicopter lanes along the River Thames and landing at Battersea heliport. She goes on to comment that one of the best parts of helicopter flying is being able to land at her home, and at so many other sites where fixed wing aircraft cannot land. She also recalls how much she enjoyed the privilege of being able to travel from Oxford airport in her husband's executive jets, including Learjets, BAe 125, Mitsubishi Diamond, Beech Starship and Cessna Citation.

Her helicopter flying led to an involvement with the Helicopter Club of Great Britain, first as a member, and then on the Board. To this day, she continues to be involved with its enjoyable fly-in events, such as weekends in France, treasure hunts, and visits to other members' properties where there is adequate landing space, including her own home, and where she enjoys great camaraderie and hospitality.

Elizabeth's involvement with the Helicopter Club of Great Britain led to her also becoming a long-serving Board member of the General Aviation Safety Council (GASCo), an organisation which has itself done a great job over many years overseeing the flying safety of the GA community. The Chairman at the time of her joining the Board was none other than PM Air Cdre Rick Peacock Edwards CBE AFC. Sadly, GASCo has recently announced that, after 65 years, the lack of adequate funding has led to a decision to cease operations. This will be a great loss to the aviation community.

JOINING THE COMPANY

Attending her first GAPAN Luncheon Club as a guest in 2011, introduced by Liveryman Peter Barker and Freeman Lesley Oldham, Elizabeth knew immediately that she wanted to become a member of the then Guild and become more involved. She was elected a Freeman in

2012, a Liveryman in 2017, and was elected to the Court as an Assistant in 2018, and Warden in 2022.

Elizabeth's involvement in aviation goes back a long way but is perhaps best demonstrated through her commitment to the Air Pilots. Her role within the Company has been extensive. She is a Board member of Air Pilots Property Ltd, a member of the Trophies and Awards Committee, the Centenary Committee, the Bursary Committee when it was active, the Mentoring Group, the Unmanned Aerial Systems Technical Group, and the Airspace Innovation and Research Technical Group, and she has helped with scholarship sifting. She has attended many events at airfields, supporting schools and scholars, and presenting certificates on behalf of the Company. She is the Liaison Officer for the Air Pilot's affiliation with the Red Arrows, and she is a member of the Flying Club Committee. Over the years, she has involved herself with as many events and visits as she was able. She has written articles for *Air Pilot*, and she has a special interest in developing a greater focus on the Company's impressive list of affiliated units, their activities, and involvement with the Company. She has also taken part in no fewer than five Lord Mayor's Shows, an annual event in which she is keen to foster an even more active involvement, and especially with an eye on the centenary of the Company in 2029. Along with Liveryman Pat Voigt, she helped reinstate the Assistant Dinners at Rules, a West End London restaurant with an important place in the history of the Company.

She has also been a long-standing Committee member, and will shortly become Chairman, of the Candlewick Ward Club. This gives her a good insight into the City of London and will be of great value regarding interaction within the Square Mile during her year as Master. Finally, Elizabeth has recently been asked to become, and is now sitting as, a Parish Councillor for her home village in the Cotswolds.

Elizabeth says she is very much looking forward to her year as Master and will commit herself with great enthusiasm and passion to her many duties. □

The Master's happy place - flying back from a visit to RAF Valley, with Liveryman Jeremy James



THE NEW WARDEN: PETE TAYLOR

Pete's interest in aviation began at a very young age when his father took him and his two brothers (both of whom went on to be military fast jet pilots) to an airshow at Liverpool Speke airport. It was on that day Pete decided that the one and only career to follow was that of a professional pilot.



Pete back in a light aircraft (BAe Bulldog)

Thereafter he was consumed by anything and everything connected with aviation: building Airfix kits and balsa wood models, and reading aviation manuals was how he pursued his newfound passion. He joined the local branch of the Air Training Corps as soon as he could at the age of 13. He relished all activities presented to him including AEF flying, gliding, shooting, camping and leadership training. Pete went on to achieve the rank of Flight Sergeant and Staff Cadet.

Whilst attending Nottingham University Pete joined East Midlands University Air Squadron as a Cadet Pilot. Enjoying the professional instruction under the full time RAF QFIs Pete flourished in his flying training, winning the First Solo trophy and the ACE (Achievement, Cooperation and Enthusiasm) award in 1987. During his time with EMUAS Pete achieved some 86h and his last military flight was his Preliminary Flying Badge test resulting in him gaining his UAS wings.

In 1989 Pete was awarded a part-sponsored integrated F-ATPL course with British Midland Airways which he completed in January 1991. Because of the outbreak of the Gulf War confidence in air travel was at an all-time low, with no pilot positions being available at the time. Not to be disappointed, Pete seized the opportunity and re-trained as a member of cabin crew. Later that year he was to begin his long association with the territory of

Hong Kong during a short stint as a Second Officer on the Boeing 747-400 with Cathay Pacific Airways.

Finally taking up his full-time position with British Midland as a First Officer on the Boeing 737-300 in January of 1992, he served for 2½ years on the company's short-haul network, accruing some 1,500h. Early 1994 saw Pete make a significant career decision by moving back to Hong Kong to join Dragonair.

DRAGONAIR CAREER

Joining the company as a First Officer on the Lockheed Tristar; he quickly achieved command on the Airbus A320 and was appointed as a Training Captain in the year 2000. A string of management positions followed, including Training Manager A320/A330 and Training Manager Standards. One of his most demanding roles was that of Base Training Captain, under whom new pilots would have complete circuit training in the A330, allowing them to complete their Airbus type-rating. He returned to full-time flying duties in 2017, remaining with the company until its unfortunate demise in October 2020 as a result of the Covid-19 pandemic.

During his career Pete had amassed some 12,000 flying hours and 2,500h of simulator instructional time.

Pete joined the Honourable Company Hong Kong Region in July 2018. On his return to the UK Pete rapidly became involved with the youth programme within the Company. In January 2022 he was elected onto the Court as an Assistant and was re-elected in January 2025. He is currently a member of the Promotions team, Pilots Aptitude Test team, Airspace Innovation Technical Research Group and Training Standards Group, and is also Chairman of the ACEC.

He is immensely proud to be able to serve in a wide number of roles within the Company and is particularly passionate about helping aspiring aviators to get their careers off the ground. Pete plans to use his experience and passion to continue to contribute to the continued development of the Company.

In 2025 Pete set about renewing his UK PPL. Having not flown at all for five years, he found getting to grips with light aviation quite a task, having to re-learn old skills such as manual navigation and PFLs. Pete is a keen gym-goer and enjoys keeping fit, hiking whenever he can. He is also partial to the occasional game of golf though the handicap remains stubbornly high! Pete is married to Sarah, who is also a retired Captain, they having served together at Dragonair. They live in Tunbridge Wells and have three grown-up children. □

ASSISTANT ELECTIONS

By The Editor

In the elections to the Court which were conducted in February, two new Assistants were elected, and four previously-serving Assistants re-elected.

NEWLY ELECTED ASSISTANTS



Capt Mark Grigg joined the Company in 2021 and became a Liveryman in 2023. Currently flying the Boeing 787 for British Airways, he spent much of his 16 years' service in the RAF flying the Lockheed Martin C-130 Hercules and as a QFI but was also responsible for organising the late

Queen's Golden Jubilee flypast in 2003. A member of the ACEC since 2023, he is part of the Youth Gliding Team and the Promotions Team. A previous school governor and incoming Chair of a City Ward Club, he looks forward to using his organisational and team skills in furthering the interests of the Company – and continuing to enjoy flying the De Havilland Tiger Moth and Chipmunk.



Hon Grp Capt Joanna Salter was Britain's first female fast jet pilot, flying the Panavia Tornado GR1 with 617 Squadron, and as a Qualified Tactics Instructor. Having joined the Company in 2009 and been admitted to the Livery in 2025, she currently works as a leadership and keynote speaker and executive coach. She volunteered for over 10

years with 6 Air Experience Flight, flying more than 1,000 Air Cadets and supporting youth aviation and education, and is also an ambassador for the Royal International Air Tattoo, promoting inclusion and excellence in aviation. She brings an understanding of aviation culture alongside experience of board level decision-making, risk and stewardship, and has a long-standing commitment to supporting women in aviation, through both advocacy and visible service, mentoring and setting example.

RE-ELECTED ASSISTANTS



Grp Capt Barry ('Baz') Dale has been an Assistant since 2023, having joined the Company in 1999 and become a Liveryman in 2016. As Commandant of 2 Flying Training School, he is the Company Liaison Officer for the Central Flying

School RAF. He is a member of the Aviation Careers and Education Committee, has volunteered to be a Mentor and continues to strengthen the ties between the Air Pilots and the RAF Air Cadets.



Sebastian Pooley is Chairman of the Company's Centenary Steering Committee, a previous Chairman of the Young Members/ Young Air Pilots and has also served as a Trustee of the Air Pilots Trust and member of the Audit (now Oversight)

Committee. Having joined the Company in 2003, he has been a Liveryman since 2009 and an Assistant since 2020. He is Managing Director of Pooleys Flight Equipment Ltd.



Christine McGee has been an Assistant for six years, having joined the company in 2015 and the Livery in 2019. She has been running her own company, working as a corporate pilot and consultant, for 35 years. Since 2019 she has been Secretary and a Trustee of the Air Pilots Benevolent Fund, a Trustee of the

Gladys Cobham Trust and has served on several working groups of the ITF since 2015, the Promotions Team and the Scholarships application-sifting team.



Eleanor Ivory, a UK CAA Aeromedical Examiner, is Honorary Medical Advisor to the Court. Alongside her medical career, she has flown as a Senior First Officer with BMI and British Airways and has been a Trustee of Flying Scholarships for Disabled People. She has been a Company member since 2007 and a Liveryman since

2015, an Assistant for three years and is a member of the Promotions Team. □

LEO SATELLITES: TECHNOLOGY VS GEOPOLITICS



By *Liveryman Donagh Patrick McCullagh, Chair, Space Technical Group*

Significant amounts of capital and technological innovation are being channelled towards a new layer of satellite operation in low Earth orbit (LEO). This new constellation of spacecraft for aviation operations

in LEO offers many potential benefits, but there are questions still to be answered. The potential benefits are improved in-flight connectivity (IFC) and more robust Position, Navigation & Timing (PNT) airborne systems. The long-term uncertainties for aviation operators are whether geopolitical-driven safety assessments and telecoms regulation will prevent them from using these benefits freely.

THE LOW-COST REVOLUTION

Space launch costs since 1957 until the last decade have been prohibitively expensive, leaving orbital activity to governments and the largest corporations. This led to a 'one & done' philosophy of putting a low number of very-high-capacity (and therefore very expensive) communications satellites in a very high geostationary Earth orbit (GEO) to allow for a long operating life and maximum line of sight over the Earth. One satellite can stay on station for more than 20 years over the same point of the Earth with about one third of the planet in its line of sight.

LEO is much easier/cheaper to get to, allows higher data rates and lower data latency but has not been used for single communication satellite operation because of:

- fractured coverage - time overhead can be limited to 30min windows, albeit multiple times a day;
- line of sight - usable range is at a national or sub-national level rather than continental/intercontinental coverage at GEO;
- asset life - orbital decay/atmospheric drag occurs at a much faster rate at lower orbits, leading to asset lives of around five years.

The US Center for Strategic and International Studies (CSIS) estimates that SpaceX has delivered a reduction of an order of magnitude in launch costs per kilogramme in the last decade, from Falcon 1 (comparable to historical vehicles) to Falcon 9 Heavy to \$US1,000 (inflation adjusted to 2024 dollars).

The collapse in launch cost has allowed SpaceX and Starlink to get around the disadvantages associated with LEO communications satellites by 'flooding' LEO with thousands of (relatively) cheap mass-produced satellites that communicate with each other via inter-satellite links (ISLs).

Only estimates of the cost of a Starlink satellite are

available (it being a closely-held private company) but they are certainly less than \$US100,000 each, compared with the cost of 'traditional' GEO satellites at about \$US600million. Therefore, if a number burn up within five years, the philosophy now is to simply launch another set.

CONTENDERS COMPARED

STARLINK

Elon Musk's constellation is already in operation and specifically in terms of orbital coverage, has world-wide reach. The word specifically must be used as there are substantial gaps where Starlink does not have permission to operate on groundlink, for example, China. Starlink obtained a baseload of customers to cover initial fixed costs by offering land/terrestrial broadband to regions under-served by landline high-speed broadband. This market has the advantage of only one portion of the system moving, the Starlink satellite. The offering moved onto slower-moving traffic such as maritime. Last year (Sep 2024) saw American Airlines and Air France signing for initial roll-out (beta testing tucked into the contract).

Fleet size, 7,600 with a further 12,000 planned (400 dead or not responding to control); estimated realised data rates, 20GB/sec; availability, 110 countries.

ONEWEB

Despite starting much earlier than Starlink, OneWeb has not had access to the kind of financial capital available to Starlink.

This meant it has lost any kind of first-mover advantage. Bought out of bankruptcy in 2021 by the UK Government and Bharti in 2021, the company merged with French operator Eutelsat in 2024. Commonly viewed to have over-paid for the asset, Eutelsat has had to raise fresh capital, including from shareholders the French & British governments, to steady its balance sheet and lay the ground work for expansion.

On top of OneWeb's slow roll-out of its early Gen I satellite fleet, the design of the satellites was seriously impaired by the lack of ISLs. This meant a requirement for a ground gateway station (think Goonhilly) on both ends in the early days. This drawback has now been addressed. OneWeb's fleet of satellites orbits at twice the height of Starlink at 1,200km.

Fleet size, 648 with a further 440 planned by 2030; estimated realised data rates, 9GB/sec; availability, 180 countries/territories.



OneWeb's ground station at Nuuk in Greenland

IRIS²

The IRIS² (Infrastructure for Resilience, Interconnectivity and Security by Satellite) programme is a planned €10.5 billion public-private partnership between the European Union (with the European Agency for the Space Programme), the European Space Agency (of which the UK remains a member) and satellite operators SES, Eutelsat and Hispasat. As signalled by the references to *Resilience* and *Security*, this programme has a focus on providing secure communications systems for governmental entities (the EU and member governments). The EU, with the ESA, will provide €6.5 billion of funding with the commercial satellite providers providing the balance to move all the way from design to system operation. This represents a significant government support with committed 'take or pay' contracts signed by the public sector to take capacity IRIS² capacity [25-40% of each satellite operator's IRIS² capacity] as a baseline customer. The 'take or pay' capacity may be either kept for government use or on-sold to other customers. The balance will be sold by the satellite operators in their usual way.

Fleet size is much smaller than Starlink's but with a multi-orbit architecture to offset that. Capabilities will include a small medium Earth orbit (MEO) fleet in the programme and connection agreements with Eutelsat, Hispasat and SES's current GEO and MEO fleets which have complementary advantages and disadvantages to LEO. Groundlink/Earthport stations will be based solely in Europe with global coverage.

Fleet size, 264 LEO/18MEO; estimated data capacity of new fleet, 2TB/sec

AMAZON KUIPER/BLUE ORIGIN TERAWAVE

For completeness' sake, I should mention two planned constellations of satellites linked by Jeff Bezos ownership. Amazon's Kuiper constellation is planning 3,200 LEO satellites for the consumer market while Blue Origin's Terawave is planning 5,400 satellites addressed to governments, corporations and data centres. Terawave is planning for 5TB/sec data, and Amazon Kuiper 1TB/sec.

POTENTIAL BENEFITS FOR AVIATION

On-board, in-flight connectivity will only increase as signal latency falls and supply increases. For civil air transport (CAT), this will only increase options for passengers. In aircraft operations, higher rates of telemetry can provide for possibly more sophisticated aircraft management and more dynamic airspace management and operation, which obviously relies upon the airspace regulator deciding to accept the opportunity offered by the availability of the technology.

PNT is important as GPS spoofing is now considered an extremely significant flight safety factor in certain FIRs, like the eastern Mediterranean. LEO data networks can provide complementary or secondary data to keep



Artist's impression of the OneWeb constellation (OneWeb)

navigation systems working. OneWeb has provided a packaged solution for alternative PNT ('Astra') since late 2024, Starlink is working on a commercial offering and PNT is in the specifications for IRIS².

The focus of LEO operators has been on CAT in the last 18 months as terminals have finally moved to a position for beta-testing in flight. Both Starlink and Eutelsat have announced installation of new LEO IFC systems. The sales announcements so far appear to concentrate on passenger WiFi access.

TRADE REGULATION THREATS

The unilateralist & volatile approach of the Trump Administration to foreign policy has been the most effective advocate for proponents of IRIS². It is now reasonable to think that European aviation regulators and US aviation regulators may insist on aircraft on their respective registries using their 'home team' systems to avoid their aircraft suffering a government-ordered denial of service implemented without notice.

Two regulatory topics will affect the future of LEO data systems and their availability for aviation operations:

1) the EU Space Act (described by some as the 'Space GDPR'), currently passing through the legislative process, provides for monitoring and enforcement of the Act for non-EU satellite operators to lie with the European Commission and the European Agency for the Space Programme – one of the managers involved with the IRIS² programme.

2) The four-yearly plenum of the UN's International Telecommunications Union, the global standard-setter for the telecoms industry, is set for late 2027. There are fears that allegedly aggressive use of radio frequencies by Starlink allowed by the USA will come under scrutiny which may cause significant friction in the industry and diplomatic ructions.

In conclusion, the technological advances and cost reductions theoretically available to aviation operators may be impaired by a breakdown in the spirit of global diplomatic cooperation. □

AVOIDING THE SLIPPERY SLOPE

By Upper Freeman Ben Bosshardt and Liveryman Will Wright, Training and Standards Technical Group



Ben Bosshardt



Will Wright

The expression *slippery slope* is commonly used to describe a course of action that may lead to increasingly adverse outcomes. It can also refer, quite literally, to an

icy or contaminated surface. In winter aviation operations, both interpretations are relevant.

The International Civil Aviation Organization (ICAO) has identified runway incursions - defined as any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and take-off of aircraft - together with runway excursions, involving a veer-off or overrun from the runway surface, as two of the five global high-risk categories of aviation occurrences.

This article examines how the operational demands placed on pilots have increased in recent years and discusses practical mitigations that can be applied to manage the associated risks, particularly during ground operations in winter and high-density traffic environments.

Airports worldwide have experienced a significant increase in traffic volumes in the post-Covid-19 period, with record numbers of passengers and aircraft movements. This growth has led to reduced margins in runway and taxiway operations, including closer spacing between arriving and departing aircraft. In order to maintain capacity, air traffic controllers are often required to issue landing clearances shortly after the preceding aircraft has vacated, or is even still about to vacate, the active runway.

MAXIMISING EFFICIENCY

To sustain high arrival and departure rates, all parties must operate with maximum efficiency. Aircraft are expected to vacate the runway promptly to avoid obstructing subsequent movements. Consequently, taxi instructions are frequently issued at a time when flight crews are still decelerating, assessing braking action, and manoeuvring to clear the runway safely, particularly on contaminated surfaces where directional control and stopping distance are critical considerations.

This substantially increases cockpit workload. During

the immediate post-landing phase, the crew's attention is heavily engaged in aircraft control, reverse thrust management, monitoring deceleration, ensuring safe runway exit geometry, and after-landing flows. Simultaneously, the crew is expected to receive, interpret, and retain taxi instructions, and to construct a coherent mental model of the intended taxi route, often in an unfamiliar aerodrome environment and during hours of darkness, all at a critical time where distributed cognition and awareness are paramount for the maintenance of safety margins. Within the Threat and Error Management (TEM) framework, this phase of operation represents a convergence of multiple external threats, including high traffic density, reduced visual cues, time pressure, complex or non-standard taxi clearances, and degraded surface conditions. Human information processing capacity is inherently limited, and under conditions of elevated workload the ability to accurately perceive, decode, and integrate verbal information is reduced. When taxi instructions are issued at a moment when the flight crew's cognitive resources are already saturated, the likelihood of misperception, expectation-driven interpretation, or incomplete comprehension increases.



A congested, confusing environment, especially at night, and a high workload are not conducive to taxiing safety (iStock/capture-the-moment-with-me)

Within the TEM model, such misinterpretation constitutes an error. If this error is not detected and effectively managed, it may lead to an undesired aircraft state, such as taxiing via an incorrect route, entering a closed taxiway, or inadvertently infringing a protected runway area. In situations of runway proximity where an immediate stop is not feasible because of traffic considerations, the deliberate use of a clear and unambiguous "Standby" call to air traffic control represents a valid and effective error management strategy. By temporarily deferring the receipt of further taxi instructions until cognitive workload has been reduced and aircraft control stabilised, the flight

crew preserves situational awareness and significantly reduces the likelihood of error escalation during a critical phase of ground operations.

TECHNICAL SUPPORT

Technological aids can provide valuable support in managing these risks. Taxiway guidance systems that present the assigned route through a sequence of illuminated green centreline lights, such as those implemented at airports like Singapore Changi or London Heathrow, significantly enhance the ease of identifying the upcoming turns and stopping positions. Equally important is controller awareness of flight crew workload and the timing of taxi clearances during the immediate post-landing phase. Clear ground signage, well-designed aerodrome layouts, stop bars, and conspicuous warning lights remain fundamental defences against ground navigation errors.

While advances in avionics mean that many aircraft are now equipped with electronic taxi charts and airport moving map displays, an over-reliance on these systems introduces its own risks. In an operational environment increasingly affected by GPS interference, including jamming and spoofing, these tools may become degraded or unavailable with little warning. Flight crews must therefore retain proficiency in traditional navigation techniques and maintain a robust cross-check between visual cues, charted information, and ATC instructions.

Environmental considerations have added further complexity to ground operations. Many operators now encourage single-engine taxi procedures to reduce fuel burn and emissions. Unless the aircraft is stationary, these procedures introduce additional workload and potential distraction during a phase of flight that already demands heightened vigilance and precise control.

CRM AS MITIGATION

Effective crew resource management (CRM), combined with disciplined task prioritisation, remains one of the most powerful mitigations against taxiway and runway incursions. Actively engaging all flight crew members in developing and maintaining a shared mental model of the taxi plan is essential. Verbalising the intended route (for example: "We are on taxiway C and will turn left at the second intersection into taxiway X, behind the easyjet A320") supports cross-verification, facilitates challenge, and increases the likelihood that discrepancies between clearance, expectation, and reality are detected early.

Non-essential tasks should be deferred until the aircraft is either stationary or established on a long, uncomplicated taxi segment. If uncertainty exists, reducing taxi speed or stopping the aircraft to clarify instructions is an appropriate and professional response. Within a safety

management context, the maxim remains valid: *If there is doubt, there is no doubt.* The perceived inconvenience of requesting clarification is negligible when compared to the operational, safety and reputational consequences of a runway incursion.

Confirmation bias is a prevalent cognitive weakness. Particularly when workload is high, and while operating in an uncertain environment, it has the potential to lead to significant negative consequences. A proactive CRM-centred approach can be used to mitigate the risks. Open questions allow for enhanced crew co-ordination and collaboration. An example would be: "What do you think our clearance is?". This gives all crew members a chance to stress test their mental model and compare it with those of the other crew members to help ensure clarity of the given instruction.



Better airport design and lighting will help crews cope (Reportsweb)

Published standard taxi routes between runway and gate, or from stand to runway, can assist in building situational awareness. However, they must always be actively verified against the actual clearance issued by ground control. Preconceived expectations can lead to expectation bias, where anticipated information distorts perception and causes pilots to hear what they expect to hear, rather than what was actually transmitted.

On contaminated surfaces, ground markings may be difficult to discern and stopping distances are increased. A taxi speed appropriate to the prevailing conditions is therefore not merely a matter of comfort or efficiency, but a critical safety barrier that may prevent a manageable threat from escalating into an undesired aircraft state on a literal and figurative slippery slope.

As for that slippery slope mentioned at the start, the metaphorical one? Increasing rates of runway and taxiway incursions already indicate an operational environment of growing complexity and reduced safety margins. If the workload on pilots is made even heavier during the crucial period just after landing, then that operational environment will become even more complex. Whilst being encouraged to use single-engine taxi procedures - and to consider environmental impact - may not initially seem like a significant demand, when combined with other threats it edges pilots closer towards that slippery slope. Proactive threat and error management remain the most effective safeguards: let's not go into a skid and end up in a less safe world. □



THE CENTENARY IN 20 ARTICLES

THE HAWKER HUNTER

By Liveryman Peter Elliott

Air Pilot's series of Centenary-focussed profiles of the individuals and aircraft which exemplify the Company's first century continues with the story of the Hawker Hunter

"Hunter, *noun*. A horse used, or adapted for use, in hunting." If you mention the Hawker Hunter to people of "a certain age" they will probably cite the Black Arrows and the 22-aircraft display at Farnborough in 1958, or Sqd Ldr Neville Duke gaining a new world airspeed record. Generations of pilots in nearly two dozen countries flew the type, either in front line service or as a lead-in to more modern fighters.



The first of three Hawker P.1067 prototypes, WB188 first flew in 1951 and was engaged in trials until being converted with a reheated Avon to be the sole Hunter Mk.3 for its attack on the World Air Speed record. It was later used as a ground instruction airframe at RAF Halton before being saved and restored for museum display. (All pictures RAF Museum)

The Hunter's origins lay in Hawker's P.1052, a swept-wing aircraft developed from the Sea Hawk, which first flew in 1948. Also in 1948, the Air Ministry issued a specification (F.3/48) for a day interceptor with a speed of 630mph (1014km/h) at 45,000ft, and fitted with either two or four Aden cannon. Sydney Camm designed the P.1067, which became effectively the Hunter prototype, and production orders were placed for both this type and Supermarine's Type 541 (later named the Swift) off the drawing board. Neville Duke made the P.1067's first flight on 20 July 1951, and the first production aircraft made its first flight less than two years later. In September 1953. The first prototype (WB188) was modified with an afterburning engine and in Duke's hands it set the new world record - 727.63mph (1171km/h) – on 7 September 1953, only to be overtaken by the Swift less than three weeks later. Duke's Hunter is displayed at the Tangmere Military Aviation Museum.

IN SERVICE

The Hunter entered RAF service as the F. Mk. 1, powered by the Rolls-Royce Avon 113 engine, and development of the type led to the F. Mk. 4, which introduced a more powerful Avon engine, fittings for underwing fuel tanks, and blisters under the fuselage to collect ammunition links when the guns were fired – these were nicknamed "Sabrinas" after a rather prominent actress of the time. The Hunter's armament of four Aden cannon and ammunition was mounted in a removeable gun pack which could be removed and replaced with a pre-prepared pack to re-arm the aircraft quickly. Radar mounted in the nose provided ranging data for the gunsight.

The F. Mk. 6 was produced in the largest numbers and introduced a new wing with a "dogtooth" notch in the leading edge and four hardpoints for stores, together with an uprated engine. Many were later converted to FGA.9 status, as the Hunter's role changed to include ground attack in the Middle East: it could carry a range of stores under the wings, including bombs, rockets (clusters of six 3in, or containers of 2in) drop tanks and



UK Hunter production took place at Hawker Aircraft factories here at Kingston upon Thames (with final assembly at Dunsfold) and Blackpool, and at fellow Hawker-Siddeley company Sir W G Armstrong Whitworth Aircraft at Coventry.

napalm. The aircraft was also equipped with a brake parachute and increased cockpit ventilation. The FR. Mk. 10 was a reconnaissance variant equipped with three F95 cameras. A two-seat trainer did not appear until the T. Mk 7, four of which were converted from single-seaters and 65 new-builds. The last variants developed for the UK were the GA. 11 and PR. 11, a weapons trainer and



Amongst the many export orders for the Hunter were 100 for Switzerland - 12 ex-RAF Mk.6s and 88 new-build Mk.58s as depicted here.

a reconnaissance variant respectively, for the Royal Navy and seven two-seat test aircraft for the Royal Aircraft Establishment.

Trial installations and firings of the Fairey Fireflash and de Havilland Firestreak air-to-air missiles were made, but the Hunter's days as a fighter interceptor were coming to an end by 1960, when the English Electric Lightning entered service.

Hunters served with the RAF in the UK, Germany and in the Middle and Far East, as interceptors and in the ground attack and reconnaissance roles. Once withdrawn from the front line, the Hunter did sterling service training the RAF's future fighter and ground attack pilots at RAF Valley and the two Tactical Weapons Units, serving in this role into the 1980s, when it was superseded by the BAe Hawk. The *Black Arrows* aerobatic team was formed by 111 Sqn and in September 1958 performed the first 16-aircraft barrel roll, as well as looping a 22-aircraft formation at that year's Farnborough Air Display. Less well-known Hunter teams were the *Black Knights* from 54 Sqn and the *Blue Diamonds* of 92 Sqn, whose name apparently inspired the *Rough Diamonds* of 738 Naval Air Sqn.

PRODUCTION

Production of the Hunter was undertaken at Hawker's Kingston upon Thames and Blackpool plants and Dunsfold airfield, at Coventry by Armstrong Whitworth (part of the Hawker Siddeley Group), under licence by Fokker at Schiphol, and at Gosselies (now Brussels-Charleroi) by SABCA (*Sociétés Anonyme Belge de Constructions Aéronautiques*). In total 1,972 Hunters were built, with many later converted

to later marks or refurbished for sale overseas.

EXPORTS

The Hunter attracted orders from some 20 countries, in Europe, Scandinavia and the Middle and Far East: Abu Dhabi; Belgium; Chile; Denmark; India; Iraq; Jordan; Kenya; Kuwait; Lebanon; Netherlands; Oman; Peru; Qatar; Rhodesia; Saudi Arabia; Singapore; Somalia; Sweden; and Switzerland. Some of these had multiple lives: for example, Dutch licence-built Hunters were re-purchased by Hawker Siddeley, refurbished and sold to India, Iraq, Jordan, Kuwait, Chile and Qatar; Belgian-built Hunters similarly ended up with India, Iraq, Lebanon, Kuwait and Chile.

COMPANY CONNECTIONS

Many members of the Company will have encountered the Hunter during their RAF service, either in squadron service or as a stepping stone to the front line. PM Duncan Simpson flew the aircraft whilst serving with the Central Fighter Establishment, and then joined Hawker Aircraft as a test pilot, in which role he flew not only the Hunter but also the P.1127, Kestrel, Harrier and Hawk.

TECHNICAL SPECIFICATIONS HAWKER HUNTER FGA.9



The definitive FGA.9 variant (with many converted from the FMk.6) was widely used by the RAF and overseas air forces. This pair is flying with 8143 Squadron patrolling the Dhala Road, Aden, circa 1967

Manufacturer	Hawker Aircraft Ltd & others
First Flight	20 th July 1951 (prototype)
Number Built	1,972
Wingspan	33ft 8in (10.26m)
Length	45ft 10½in (13.98m)
Height	13ft 6in (4.26m)
Empty Weight	13,270lb (6,020kg)
Max Take-off Weight	24,000lb (10,885kg)
Engine	Rolls-Royce Avon 207
Maximum Speed	M0.92
Cruising Speed	M0.84
Range	1,840 miles (2,965km)
Service Ceiling	50,000ft (2,965m)





Armstrong Whitworth built 45 F.Mk.2s, fitted with Armstrong Siddeley Sapphire turbojets, of 257Sqn Wattisham, 1955.

PM Robert Pooley served as ground crew with 4 Sqn – a Hunter unit – in the lofty rank of Senior Aircraftman, during his National Service in the 1950s, and drew on this connection to establish the Company's first formal relationship with a service unit.

CONCLUSIONS

The Hunter was the RAF's first British-built, swept-wing fighter, and a significant leap forward from the Gloster

Meteor and De Havilland Vampire. Although limited as a day interceptor, it performed well in the ground attack and reconnaissance roles and then helped to prepare new pilots for more advanced aircraft. It achieved significant export sales, in both new-build and refurbished examples. More than 70 years after the Hunter first entered service, a small number are still earning their keep, flying in roles such as air combat training and trials. To finish – as I started – with an equine analogy, the Hawker Hunter proved to be a very successful thoroughbred. □

The famous Black Arrows formation which performed a 22-Hunter synchronised loop at the Farnborough Airshow, 1958.



FLYING THE HUNTER

Many have fond memories of the Hunter, regarding it as a "pilot's aeroplane" responsive to the touch. Neville Duke wrote: "It lives and is obedient to your slightest wish." Air Marshal Sir Peter Wykeham felt that: "The slim fuselage, thin swept-back wings, tailplane and fin, and the delicate balance and proportion of the whole aircraft were the very poetry of motion." Flt Lt Al Pollock, who flew Hunters in the 1960s (and achieved fame/notoriety for flying a Hunter under the top span of London's Tower Bridge) recalled: "You really felt as a 20-year old that you'd drawn the long straw of life to be able to fly [the Hunter] in those days, because it was something special. There weren't many people, certainly in their 20s, that were flying that sort of aircraft."

Author Robert Prest, who flew the Hunter in the weapons training phase of his career, before going on to the McDonnell Douglas Phantom, wrote: "To me, 1972, Hawker Siddeley Hunter, obsolescent, ergonomic nightmare of haphazard instrumentation, illogical positioning of booster pump switches, UHF



The T.Mk.7 was the first two-seater variant of the Hunter: XL573 was one of the first 45, serving with No 4 FTS Valley and, as here, 12Sqn Lossiemouth.

radio set, G4 compass, inverter circuit breakers, temperamental starter motors, oil- and hydraulic-streaked dirty grey belly, bug-spattered windscreen and flaking paintwork. Yet it is functional and purposeful, an ageing lady no longer beautiful but still unique, retaining its nostalgic charisma and reminiscing on past glories as steely new breeds thunder overhead, vaunting their afterburners and stealing all the limelight."



THE NATIONAL SPITFIRE PROJECT

By The Editor and Paul Beaver, National Spitfire Project

The National Spitfire Project aims "...to create a world-class monument in Southampton that honours the legacy of the

Supermarine Spitfire and the men and women who designed, built, flew, and maintained it—ensuring their courage, innovation, and sacrifice continues to inspire future generations." That monument is to be a 40m (131ft) high stainless-steel sculpture whose pinnacle will be a 1:50%-scale model of a Spitfire Mk Vb, positioned on the waterfront at Southampton, close to the site of Supermarine's original Woolston factory.

On 5th March, the 90th anniversary of the first flight of the Supermarine Type 300 – which would become the Spitfire – the NSP team which, includes Warden Steve Dean as project manager, unveiled a virtual-reality 'walkthrough' of the sculpture. This enables visitors to the site in Mayflower Park, Southampton, to stand on the spot and experience on their phone cameras what the monument will look like from all angles.

Historian Paul Beaver, who chairs the project's 'ACES' group of ambassadors, takes up the story: After the failure of the Type 224 (see p6 of this issue), he says, "... The birth of the Spitfire could well be pinpointed to a Sunday lunchtime at the house of Alf Faddy, the leader of Supermarine design team under Chief Designer Reginald Mitchell. He and Mitchell sketched the general arrangement diagram on the tablecloth until a rather annoyed Mrs Faddy removed it to wash it.



Artist's impression of the monument

"The two engineers spent the following morning re-drawing the plans with the help of the other key members, Joe Smith and

Mitchell's assistant, Alan Clifton, both of whom would later be Chief Designers at Supermarine. Within weeks, there were 151 people in the design and drawing office teams. The development into production was troubled. The Air Ministry needed to step in and direct sub-contract work. It helped Rolls-Royce build a factory in Glasgow and commissioned the Shadow Factory at Castle Bromwich

for airframes. The development programme for the Type 300 progressed well at Eastleigh and then at Martlesham Heath until 4th September 1939 when Flight-Lieutenant 'Spinner' White had a landing accident at Farnborough and was killed. The Type 300 had done its job and almost without a thought the prototype of the Spitfire (not Shrew as Mitchell wanted to name it, nor Scarab as the Air Ministry wanted) was broken up for spares.

Throughout the Second World War, the Spitfire was a recognisable symbol of Britain's defiance. First in the Battle of Britain, where it achieved the best kill ratio of any fighter and accounted for 42% of enemy aircraft destroyed, the fighter was continually updated with upgrades of constant-speed propellers, IFF boxes and 100 octane fuel.

MANY VARIANTS

A total of 72 variants of the Spitfire built – the same airframe often being changed several times, which is why it is unclear exactly how many were built. Developments included the new RR Griffon engine, cannon armament, 'wet' wings for photo-reconnaissance variants, floats for the Mediterranean and improved high-altitude performance for chasing high flying reconnaissance aircraft. The Spitfire went to sea as the Seafire, although more were lost in training than on operations – the narrow track undercarriage was always a pitfall for young pilots on land and at sea.

Perhaps the proof of the Spitfire's legendary status even in 1940 was the Beaverbrook Spitfire Fund, which raised funds for over 1,500 Spitfires from public donation, and the Spitfire snobbery of the Luftwaffe – no German or Austrian pilot wanted to be shot down by anything but a Spitfire.

Today, 90 years later, there are more Spitfires flying around the world than there were at the 50th anniversary. Over 100 please crowds at air shows and a dozen two-seaters in Britain take passengers for the trip of a lifetime.

The National Spitfire Project was set up a decade ago to raise awareness and funds for the monument - almost as high as Nelson's Column in London, making it the largest stainless-steel structure in the world, and with foundations 25m deep to support it. The circular plinth underneath it will commemorate those who designed, built, flew and maintained the Spitfire. Full details on the project, and how to support it are at

www.nationalspitfireproject.org



REVIEW: AIR WAR OVER GREECE, 1940-1950

BY LIVERYMAN VIC FLINTHAM

Reviewed by The Editor



This is a book of staggering scholarship and research, presented as a readable – and absorbing – narrative punctuated by vast quantities of data presented in lists and tables, backed up by numerous maps and large numbers of photographs. It covers the decade in which mainland

Greece and its islands were invaded by Italian and then German forces, liberated by the Allies and partisans and then endured a brutal civil war. All of this is covered through the activities of the air arms of Britain, its then Dominions and the United States, and their respective armies and navies alongside whom they fought – and those of the German and Italian forces which opposed them.

The RAF had first become involved in a minor (and reluctant) way when Italy first invaded Greece in October 1940, mainly with the aim of ensuring that it did not become a convenient short-cut for Axis supply routes to North Africa. Although the British effort was strengthened after Germany joined the invasion in April 1941, it was unsuccessful in stemming the tide, and Allied forces retreated to Crete, from where they were evicted after a massive German paratroop landing in May 1941.

From that unpromising position, the Allied forces fought slowly back, gradually forcing the Germans to themselves retreat from the islands and up through the mainland, aided in their endeavours by rival partisan groups of differing political persuasions. By late 1944, as the Germans departed the British government was attempting to restore an unpopular exiled Greek government and king to power against various opposition groups. That led to a civil war fought mainly between Greek government forces and those of the communist ELAS rebels which initially enjoyed support from newly communist regimes such as that of Yugoslavia. As the RAF gradually withdrew, the British government (and later the Americans) handed over numbers of combat and transport aircraft to the

growing Greek Air Force (EVA), which helped the Greek government to prevail by the time the civil war finally ended in 1949.

ENORMOUS AMOUNTS OF DATA

Flintham's research has included extracting enormous amounts of data from the Operations Record Books of the RAF squadrons (including those providing support from Egypt), reproduced in the form of tables listing the types they were flying at various stages in the Greek campaign, along with similar tables for the British aircraft carriers and their RN squadrons, the EVA and their opponents in the *Regia Aeronautica* and *Luftwaffe*. The squadron ORBs have yielded day-to-day details of individual missions flown and the huge numbers of losses incurred by under-resourced Allied units, in many cases flying obsolete aircraft which were no match for the likes of the Messerschmitt Bf 109.

This wealth of data is backed up by substantial glossaries, lists of abbreviations and *dramatis personae*, appendices covering Greek airfields, specifications of all the significant Allied and Axis aircraft operated, RN ships involved in the evacuation of Crete, and lists of bombing missions in the Aegean and other operational sorties. If that were not enough, there are numerous end-notes and references, a substantial bibliography and – the crowning glory in an age of increasingly inadequate or non-existent attention to such details – an exceptional 11-page index subdivided into subject areas. There are also some 180 photographs, all of them well-captioned and a majority with individual aircraft and unit identities, illustrating all aspects of the Greek conflict – though one of the few criticisms that can be aimed at the book is the low standard of reproduction of these images, which detracts considerably from their attractiveness and usefulness.

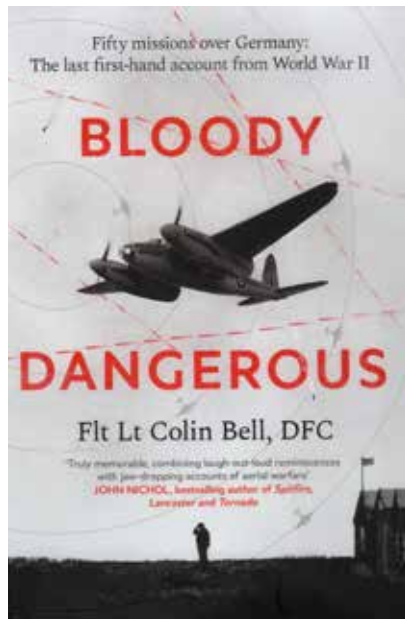
Overall, however, this is a triumph of a book – effectively a highly detailed reference work which is also an absorbing narrative read, and one that sheds a long overdue light on a part of World War Two which has not received the degree of attention afforded to so many other campaigns of that conflict.

Air War over Greece, 1940-1950: British, Dominions and United States Air Arms, by Victor Flintham; published by Fonthill, and imprint of Pen & Sword Books Ltd (www.fonthill.media); ISBN 978-1-03615-105-8; hardback, 304pp; £35.00. □

REVIEW: **BLOODY DANGEROUS**

BY LIVERYMAN FL LT COLIN BELL

Reviewed by The Editor



Bloody Dangerous is billed by its publisher as “The last first-hand account from World War II”, and there cannot be many who would dare to challenge that assertion – how many other veterans of that conflict are likely to start writing their memoirs now, let alone have them published at the age of 105?

The title comes from the author's reaction to being targeted by searchlights and flak over Emden during the return leg of a raid on Hannover in his beloved De Havilland Mosquito. The focus of the book is his tour of 50 such raids in 1944-5, always accompanied by his somewhat taciturn but brilliant Canadian navigator Doug Redmond. If that was all that the book covered, it would still be a riveting read, but it is so much more.

It begins with the story of his childhood, in circumstances far removed from the sort of privileged background described in so many accounts of elite pilots of World War Two, but with some thought-provoking revelations. Not the least of those is his thought that he might be the last person alive who saw Charles Lindbergh land at Croydon Airport on his way back from Paris after the first solo flight across the Atlantic in 1927, when Bell was six years old. That is, almost, matched by his memory of seeing and hearing the doomed airship R101 passing overhead London on its way to its fateful crash near Beauvais in October 1930.

Early chapters of the book follow him in his pursuit of the girl who was to become his wife of 77 years, including motorcycle trips to Wales to try to see both her and his signalman elder brother – and unauthorised visits to the latter's Army camps – but the narrative quickly moves on to his acceptance into the RAF and subsequent training. Bell was one of those lucky enough to be sent to the USA for flying training in 1941.

AMERICAN TRAINING

His accounts of bountiful food and American hospitality, so far removed from the grimness of rationing and blitz at home, are revealing, as is his description of the brutal ‘West Point’ approach of American instructors. Bell was initially disappointed – but on reflection relieved – when, on graduation as a pilot, he was not sent home to fight, but informed that he was now an instructor. In that role he was to succeed in achieving greater pass rates for his pupils than his American hosts, by employing a more ‘British’ approach to discipline and training.

Eventually, of course, Bell was to find himself back in Britain, converted onto twin engines on the Airspeed Oxford and obsolete Bristol Blenheim. His ambition to join a Bristol Beaufighter squadron was thwarted by his recruitment by Grp Capt ‘Hamish’ Mahaddie into the Light Night Striking Force within the Pathfinder force founded and led by AVM Don Bennett (Deputy Master of GAPAN 1944-46), leading to the meat of his story, Mosquito operations over Germany. His account of the dangers and emotions of flying a fast, but unarmed, bomber on mainly nighttime raids is an absorbing one, interleaved with a dozen typically brief and laconic entries from his logbook from this period, and highlighted by his successful evasion of a pursuing Messerschmitt Me 262 jet fighter.

His post-tour RAF career remained on the Mosquito, firstly ferrying Canadian-built examples across the Atlantic (his descriptions of coping with inadequate navigation and dodging icebergs might widen the reader's eyes) and finally as a diplomatic mail (and occasionally unauthorised baggage and passenger) carrier. After such a distinguished military flying career, it may surprise many that he returned to his pre-war occupation as a surveyor, not retiring until the age of 98.

This is truly a remarkable and inspiring tale, told with modesty and good humour. The book itself is peppered with black-and-white photographs – most of them Bell's own – whose reproduction is let down by the publisher's choice of a relatively low grade of paper, and is also let down by the absence of an index. That said, this is an essential addition to any proper aviation bookshelf, and a fitting tribute to a most remarkable man.

Bloody Dangerous, By Flt Lt Colin Bell, published by Abacus Books, a Hachette UK company (www.hachette.co.uk); ISBN 978-0-349-14899-1; hardback, 272pp; £22.00 □

INTO THE OVERSHOOT

A round-up of less-formal items which have caught the Editor's eye

AIR PILOTS PANCAKE

On a cold, but sunny, Shrove Tuesday the annual Inter-Livery Pancake Races, expertly organised by the Worshipful Company of Poulterers, were once again held in Guildhall Yard. Master John Denyer tossed the pancake well on both legs of the Masters' race: he missed winning by a nose but gave us a moment of glory by qualifying for the finals. Both Consort Kate in the Ladies' Race and Mark Tousey in the Liverymen's put up a good showing but didn't qualify for the finals.

PM Jonathan Legat's best airline captain's uniform was soundly beaten in the Novelty (fancy dress) category by the magnificent Tower Bridge outfit (R) sported by Elise Rasmussen of The Worshipful Company of Tobacco Pipe Makers & Tobacco Blenders. At the post-race buffet lunch, the Air Pilots competitors (below L to R Kate and John Denyer, Jonathan Legat and Mark Tousey) agreed that had the race happened at FL380 the Company would have won every category... □



LESS DANGEROUS

Liveryman Colin Bell celebrated his 105th birthday and the publication of his book *Bloody Dangerous* (p31) by an audience with the Company's Patron, HM The King, at the beginning of March. □



JUMBO'S SEATTLE LANDING

Boeing built 1,574 of its iconic 747 in Seattle over 54 years. Now one has come home to roost – literally – in the centre of the city: ex-United Airlines 747-422 N178UA is being suspended between two tower blocks in a new residential, commercial and cultural development. Moved in 39 separate sections from storage in Victorville California to Seattle, the 1990-built aircraft is being rebuilt around a new structural steel skeleton, with its landing gear deployed, sitting some 14ft above ground. □

