



# THE HAWKER ASSOCIATION

NEWSLETTER 67 - WINTER 2023

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## EDITORIAL

You are one Newsletter short this year for which I apologise but medical and computer problems prevented me from compiling a Summer issue. However I am much improved and Richard Cannon (once again!) got my computer going.

At the back is the current Membership list. You will see that there are a **large number of Members behind with their subscriptions.**

### **Please pay soon - before you forget - again!**

I wish you all a happy Christmas and hope to see you at the Christmas lunch.

Please send your contributions to the Editor, Chris Farara, preferably by e-mail at [cifarara@gmail.com](mailto:cifarara@gmail.com) or to 24 Guilddown Road, Guildford, Surrey, GU2 4EN. (Phone 01483 825955). There are a few examples in this issue. Don't be put off because you have not written a story before; it's the editor's job to sort out style, punctuation, etc.

## PROGRAMME FOR 2023

Wednesday October 11<sup>th</sup>

Wednesday November 8<sup>th</sup>

Wednesday December 13<sup>th</sup>

**S/Ldr Joe Marsden** - Flying the Vulcan; a personal perspective

**Nick Anderson** - Chasing Bears in a Phantom

**Christmas Lunch**

## PROGRAMME FOR 2024

Wednesday April 10<sup>th</sup>

Wednesday June 12<sup>th</sup>

Wednesday December c11<sup>th</sup>

Annual General Meeting

Barbecue

Christmas Lunch

Possible speakers for the other slots in 2024 have been identified and are being pursued regarding dates and subjects.

S/Ldr (ret) and Virgin Captain **Nick Anderson** will talk about intercepting Russian Bear reconnaissance aircraft during the Cold War.

**The Christmas lunch** for Members and guests will be as usual at the Hawker Centre. The Menu will be similar to last year's but the price has yet to be settled bearing in mind inflation. Lunch will be served at 1.15pm. Diners may arrive from midday but not earlier, please. For further information and tickets contact Ken Batstone on 01932 229938 at 42 King's Road, Walton on Thames, Surrey KT12 2RA; cheques to be payable to the Hawker Association.

## AGM MAY 10<sup>th</sup> 2023 CHAIRMAN'S REPORT

The Hawker Association continues to thrive and remains proactive in a number of areas, particularly where we are continuing to promote historical interest in Hawker companies and products. The 'Hunter for Kingston' project is at the heart of this activity, but we continue to support the Kingston Aviation Heritage Project and Brooklands Museum. With regard to the museum, the HA was instrumental in acquiring G-HAWK's original wing to replace the Mk53 wing currently fitted, and we have assisted them with their successful bid to acquire the unique and partially built P1121 from the RAF museum where it has been unseen by the public in storage for over half a century since the project was cancelled in 1958.

In the Hunter project there were major achievements during 2022 and this year we will begin to finalise plans for the installation of the aircraft in Kingston. The President, Colin Wilson, stood in for me as Chairman for seven months last year after my extended term of office was concluded at the AGM last year. This provided me with a break before resuming the role in January, having agreed to do another term. We have co-opted one new member onto the committee, and we welcome David Collingridge and look forward to working with him.

Sadly we lost founder member of the Committee and Vice President of the Association, Ralph Hooper. His passing was much more significant than simply the loss of a colleague and Association Member because Ralph's contribution to Hawker Aircraft Ltd/Hawker Siddeley Aviation/British Aerospace, Britain's aircraft industry and the defence of the nation will forever be a benchmark standard. His outstanding achievements will always remain of great historical significance. The Association Committee assumed responsibility for the arrangements for Ralph's funeral. David Hassard played a leading role in this activity, David Priddy conducted the funeral service and Sir Colin Chandler delivered a eulogy. He is also making arrangements for a Ralph Hooper award at Cranfield University. Ralph's ashes will be scattered at Brooklands museum where a plaque will be fixed to the memorial wall and we will develop plans for the long term conservation and display of his personal archives and awards. .

The HA began using Zoom as a means of communication during the pandemic and it has been continued, all thanks to David Priddy. He has set up a private YouTube facility for members so that they have a third option to enjoy the HA talks.

The Zoom technology is not easily managed from our usual location at the YMCA Hawker Centre but a small number of members have asked that it be continued. We intend to develop the facility by improving the quality but we are currently assessing the results of a recent survey and we hope to encourage more members to participate. Plans for this coming year include trying to establish a new website that would provide more modern facilities with a greater scope for information to benefit members. Some of the associated costs will be covered by the receipt in 2022 of a £12,000 legacy from the estate of colleague and Association member Terry Anstey. I thank the Committee for their hard work during the past year.

Chris Roberts, Chairman

## MEMORIES OF RALPH SPENSER HOOPER

David Hassard, who spent a lot of time with Ralph towards the end of his life looking after his affairs, sorting out his house and contents and frequently visiting him, has put together a talk from Ralph's personal photographs and memorabilia. He presented it to the Association at the YMCA Hawker on 8<sup>th</sup> March.

David started with Ralph's family background, He was born on January 30<sup>th</sup> 1926 in Hornchurch, Essex, to Herbert Ralph Hooper, a civil servant, and Margaret (nee Spenser), a distant relative of the Elizabethan poet, on 30<sup>th</sup> January 1926. He had one elder sibling, his sister Sheila who was to become a renowned botanist at Kew, Neither Ralph nor Sheila ever married. When Ralph was 8 the family moved north to Hull in Yorkshire where Ralph attended a well regarded private school, Hymers College. His principal hobby was designing and building flying model aircraft. He decided to become an apprentice at Blackburn Aircraft Ltd in Brough. He enjoyed the practical workshop training very much but decided to take the Diploma (equivalent to an HNC) route at the Hull University Technical College,

At 21 Ralph started on the aircraft design course at the new College of Aeronautics at Cranfield in its inaugural year. Besides his academic studies he continued aeromodelling and took up gliding gaining A, B and C certificates. In 1947 he started his first job, at Hawker Aircraft Ltd, which he chose over Vickers because it was easier to get to Redhill aerodrome to continue with gliding. He gained a Silver C and a Competitors Licence. In 1951 he joined a syndicate to buy a Slingsby Kite sailplane and became a founder member of the Surrey Gliding Club at Lasham. In 1952 the syndicate members modified the Kite to improve its performance, Ralph's contribution being the design and manufacture of four underwing air brakes.

Ralph's social life was centred on gliding every weekend and skiing in the winter which he did in his Hawker holidays. Around this time he became attracted to Sydney Camm's secretary, Sheila Quinlan, Their relationship became serious and together they visited Sheila's parents in Ireland. However, the relationship went no further, possibly because her family were Roman Catholic. Ralph continued flying, both gliders and Tiger Moths with skiing in the winter. His parents retired to Somerset.

In 1957 the gliding syndicate bought an 18m Slingsby Skylark III in which Ralph made over 300 flights. By now Ralph was conceiving the P.1127 powered by Gordon Lewis's vectored thrust Bristol engine, to be developed into the Pegasus. In 1960 Ralph visited NASA Langley where he made an important and enduring friendship with Marion McKinney who recognised the importance of the P.1127 and personally authorised the building of free flight controllable models to wind tunnel test the VTOL and transition characteristics of the P.1127 before it flew (VTOL and hover) in October-November 1960 at Dunsfold. The first double transition was made in September 1961.

In 1967 Ralph received on behalf of HSA the American Helicopter Society Award for "significant contributions to the development of VTOL aircraft". In 1967-68 he flew 29 hours in Rollason Condors from Fair Oaks. Whilst in hospital the Technical Publications department sent him a 'get well' card showing him in a four nozzle bed surrounded by senior colleagues with appropriate speech balloons. In 1971 Ralph received the Coachmakers award for HSA work on the Harrier. Ralph personally received the Royal Society SG Brown medal for inventors and the Royal Aeronautical Society Silver Medal in 1973 for "practical achievements leading to advances in aeronautics".

During 1972-1973 Ralph was still skiing but stopped flying,

1978 saw him appointed OBE and Technical Director of BAe's Kingston-Brough Division, In 1983 Ralph and John Fozard were jointly awarded the Mullard Medal and for Ralph alone was the top Royal Aeronautical Society gold medal for "work of an outstanding nature".

Having become unhappy with some of the BAe board activities and decisions Ralph took early retirement in 1985. At his large retirement party the secretaries presented him with a laptop computer. David Hassard found it, unused, amongst Ralph's effects. In fact he never used a personal computer in his life.

A 1986 signed photo of Bill Bedford with Sea Harriers on a carrier as the background is inscribed "To Ralph Hooper without whose creative genius it would never have happened – thanks for everything Ralph".

In 1992 Ralph's Lasham syndicate, Frank Irvine and Bill Tonkin, bought back their old Slingsby Kite and refurbished it. It now resides in the historic collection at Lasham. David showed group photographs taken at the Hawk's 21st anniversary, the 35<sup>th</sup> anniversary of the P.1127's first hover and of the delivery of the first Sea Harrier FA2 to the Royal Navy, the latter including Gordon Lewis, originator of what became the Pegasus with whom Ralph had worked closely throughout the development of the P.1127 and Harrier family.

Ralph had always been interested in other designers' aircraft and built plastic model kits of dozens of types which David discovered in cabinets, drawers and cupboards when clearing his cottage. None were painted because Ralph built the models to see how their designers had solved layout problems, not for decorative purposes. Ralph was a founder member of the Hawker Association and served on the committee and attended talks and events, even in a wheelchair, until close to his death when he was too frail.

Please visit <http://easyurl.cc/HAVideoArchive> to see the video recording of David's talk and the photographs and memorabilia he showed together with much more detail.

### **EXHIBITION AT CLAREMONT**

David Hassard was invited by Claremont Fan Court School to set up an exhibition covering the wartime use of the mansion by Sydney Camm and his Hawker team. This he did and the exhibition was open on September 9<sup>th</sup> as part of the national Heritage Open day scheme. David's exhibition was, appropriately, in the mansion's drawing room next to Sydney Camm's office. The well known posed photograph of Camm and Chaplin looking at a drawing in the office was on display as was the even more well known formal photograph of the design team outside the front of the mansion. Two visitors unexpectedly recognised relations in this photo by which David had put a names key list. The exhibition was well attended.

### **THE ASSOCIATION SUMMER BARBECUE 2023**

Ken Batstone, organiser of the event reports...

The annual Summer Barbecue was held on June 14<sup>th</sup> in fine weather with 20 Members and guests attending. Although this number was rather disappointing compared to previous years, it was a little up on last year (18 attendees). As the weather was so fine, the food was served outside on the patio, where there was plenty of shade from the trees. The barbecue food this year was excellent in both quality and quantity and was thoroughly enjoyed by all. It was generally agreed to have been better than last year. When the meal was finished, most of the attendees continued to sit in the sun and chat with perhaps just a little more alcohol, finally leaving just before the schools emptied out onto the Richmond Road, to avoid the resulting traffic chaos

### **DUNSFOLD DAY – SUNDAY SEPTEMBER 10<sup>th</sup> 2023**

We were so lucky., writes Diana Dean - the previous day had been the hottest of the year at 34 degrees. We only had 26 degrees and overcast. The day started with a meandering journey round the peri-track with diversions past a jumbo jet and finally a blue cone chicane: and there she was, Hunter XL 623. (Back in the late 60's I, together with my colleague Maggie' from Flight Test walked the whole way round the peri-track for charity. On the way, test pilot Don Riches passed us in an early Harrier. He mouthed ...did we want a lift - we signalled back ... we're fine thanks.)

My husband Mike and eldest daughter Debby, her partner Tim and two children helped put up the marquee. We needed shade and shelter for the day ahead. John and Joe Gardner set up an impressive cooking area with a barbecue and two burners for the extras. The guests started arriving from 11.45 but, due to appalling traffic in Kingston, on the A3 and in Guildford' some took longer than planned.

Memories of visiting Dunsfold from Kingston and working there in Product Support, test flying, Production and Experimental Hangars, Avionics and of course Flight Test, abounded. Some serious but many funny and nearly all happy. Everyone brought chairs and drinks and 46 of us sat in a large circle. A helicopter landed. There were many aircraft dotted about the aerodrome, probably not all airworthy. A film director came over and apologized if their drone disturbed us. It didn't but we gave him some cake anyhow. Don't think we shall feature in some new thriller movie but you never know! After a delicious hearty 'burger followed by a choice of yummy cakes and coffee, we were able to purchase some of the late Ralph Hooper's books. Despite a quick shower of rain at the end, a truly enjoyable day of reminiscences was had by all. The profits from the barbecue were £150 and the book sale made £35 in donations. This money, £185, was given to the Hunter Project.

Talking of reminiscences, back in 1979 a certain fairly newly married Miss Dunsfold Aerodrome, clad in a flying suit, was towed in a Harrier to the Sports Club to start Dunsfold Open Day. She was about a month pregnant but didn't know it. Some 44 years later, she is here and her daughter and grandchildren helped put up the marquee for Dunsfold Day. "The circle of life."

### **AVIATION – WHAT NEXT?**

Lambert Dopping-Hepenstal looked at "the future of aeronautics" on April 12<sup>th</sup> at YMCA Hawker, This was also broadcast on Zoom and is available in the Hawker video Library at <http://easyurl.cc/HAVideoLibrary>. Lambert spent 40 years from 1972 with HSA/BAe including 16 years at Kingston working on avionic systems for Hawks, AST 396, Sea Harriers and Harrier II. In 1989 he was transferred to Warton to work on their types, the Joint Strike Fighter and unmanned aircraft (UAVs). He then spent 5 years at BAe head office during the formation of BAE Systems after the take-over of Marconi.

Taking a 1966 book by Prof John Allen, "The Future of Aeronautics", as his inspiration Lambert decided to look forward from today. Some of John Allen's predictions were good: passenger growth, drones, composites, 3D printing, digital computing,

“glass” cockpits, computer aided design (CAD), fly by wire (FBW). And some were poor: video conferencing replacing air travel, supersonic airliners (except for one), nuclear propulsion, to Mars by 1980, space tourism (just starting), world computer for air traffic control, mind control by 2020. And some were missing: GPS, miniaturisation of computing and electronics, E scan radars, computer modelling and simulation.

Challenges for our future are climate change needing work on emissions, fuel availability, runway alignment, en route winds; market uncertainty; cost of fuel, crew and development; and development time.

Opportunities include advanced air mobility (small VTOL aircraft);, autonomous systems (no pilots increasing flexibility and reducing cost): space (Moon, satellites – for GPS, communications, solar panels “space solar” transmitting power to earth via HF). Lambert went on to identify funding sources available for such advances and how they might be achieved.

Propulsion efficiency (fuel per passenger) drag and weight are crucial.

Synthetic fuels, “green” hydrogen, fuel cells, batteries and hybrid electric power are candidate technologies. However, energy density is serious consideration. Jet fuel is a very efficient energy source; lithium ion (LiI) batteries are 50 x less dense than jet fuel – a 90 ton Boeing 737 would need 600 tons of LiI batteries. Liquid hydrogen needs 4 x space of jet fuel and half the 737’s volume would be needed to carry it.

Drag reduction requires high aspect ratio wings which are structurally difficult and may need strutting and active controls. Large spans won’t fit existing airports.

Market growth will require 40,000 long range aircraft in 2042, double today’s world fleet.

Advanced air mobility vehicles (AAMVs) may be used inter-city and inter-airport replacing noisy, expensive helicopters. Some 250 companies are working on AAMVs with several demonstrators flying and substantial orders placed by air lines. Challenges include pilot availability or autonomous operation, air traffic control, infrastructure, public acceptance, and certification (large numbers of designs).

For economic space operations reusable vehicles performing horizontal runway take-offs with air-breathing engines would reduce weight and cost. The UK Reaction Engines Sabre is planned to go from the ground to orbit in one hop using unique heat exchanger/ram jet technology.

The foregoing part of the detailed talk was concerned mainly with future civil air transport needs. Lambert also covered military aviation.

## **TOM SOPWITH AND THE SOPWITH AIRCRAFT FACTORY**

David Hassard, now a recognised Sopwith expert by dint of his extensive research, returned as a speaker to the YMCA Hawker to reveal the latest fruits of that research. This was a talk full of detail which I am unable to do justice to but I urge you to find a full video recording at <http://easyurl.cc/HAVideoLibrary>.

The introduction to the talk covered Thomas Octave Murdoch Sopwith’s early life as the eighth child (he had seven sisters) in the comfortably off family headed by a father who was a mine owner and mining engineer, Sadly, aged ten TOMS witnessed his father’s death in a shooting accident.

TOMS had a love of boats but he was rejected by the Royal Navy College so he attended the Seaford Engineering College on the south coast. At 16 he bought a motorbike, and won a 100 mile trial in a three-wheeled Pearson car. By 18 he was ballooning, ran a Peugeot car in the Isle of Man TT race then had a succession of boats culminating in a schooner which he bought with his old friend Bill Eyre. They recruited Fred Sigrist from Parsons Engines to install a modern paraffin engine.

In 1910 TOMS taught himself to fly at Brooklands gaining Certificate No, 31. He started competition flying and in 1911 took his aircraft and Fred Sigrist to the USA where he had a few crashes but won a considerable amount of prize money,

Back in England in early 1912 he used the prize money to start the Sopwith School of Flying and continued with competition flying. He and Fred Sigrist successfully modified an aircraft to create the Hybrid which the admiralty bought. TOMS founded the Sopwith Aviation Co. Australian Harry Hawker joined TOMS at this time, learnt to fly and became the company test, delivery and competition pilot. Having acquired the roller skating rink in Kingston TOMS, Sigrist and Hawker started designing and building aircraft in earnest, and were soon selling to the Admiralty, and by the end of 1913 had built and sold 18.

In 1914 sales were 30, 1915 199, 1916 386, 1917 851, 1918 1373 and 1919 783. These were all built in the Sopwith factories to Government war contracts. Sopwith designs were also built by other UK companies bringing the total to some 15,000, 20% of all British aircraft built for the Great War. The only other organisation to match this was the Royal Aircraft Factory. To put this in perspective other famous UK name’s production were Airco 9, Avro 8600, Bristol 550, Armstrong Whitworth 2100, Short Bros 1200, Martinsyde 75 and Vickers 500. Fairey, Handley Page and others made less than 500 each, Overseas 4,200 Sopwith Strutters were built in France bringing the total of Sopwith aircraft built for the great war to 19,200.

Sopwith financial results were also impressive, income rising from very small in 1912/13 with an equivalent profit, to the best year 1917/18 with an income of £1,55 million yielding a profit of £350,000. In 1918/19 the figures were £1.14 million and £120,000.

Why this success? David suggested that one reason was attention to detail in designing for large scale production. For

example Sopwith had a library of standard parts for designers to choose from including metal fittings and wing ribs.

After the war when the civil aircraft market was saturated with war surplus machines and large scale manufacture of ABC motorcycles failed, TOMS was forced to liquidate the company's assets to pay the debts and reward the shareholders,,the largest of which was TOMS himself!

So, Sopwith, Sigrist and Hawker started again with a new company, the HG Hawker Engineering Co,

## ST LOUIS STAGGERWING

Colin Wilson recalls a memorable flight in a classic Beech Model 17 backward staggered biplane, known as the 'Staggerwing' ...

Early in my stay at McDonnell Aircraft in St Louis, I happened upon an immaculate Beech Staggerwing parked in a hangar at one of the local West County airfields. I took some pictures for my collection and (later) even painted a small oil of it flying over the Missouri countryside. Some months later when talking to the McAir Quality Manager on the Harrier AV-8B programme, I learned that he, Bob Raymond, was the owner of the aircraft. His invitation to take a ride sometime was music to my ears but a further 12 months were to pass before that music would be heard.

Beech Staggerwing NC48401 was built in 1937 and is powered by the smaller Jacobs single row radial engine of 275 HP. It is an American classic; a biplane with its upper wings set-back further aft than the lower wings and enclosing a roomy four seat cabin. (*Ed.* Most biplanes have their upper wings 'staggered' further forward than the lower, hence the Beech has unusual backward stagger giving rise to its familiar name. This layout was chosen to improve the pilot's view downwards when banked).

We finally agreed a date for my flight and on a beautiful Sunday morning, the 1<sup>st</sup> July 1979, I arrived at Creve Coeur (Broken Heart) Airport just ahead of Bob at about 07:45. The weather was already warming up and several other owners arrived and exchanged "Hi theres", with Bob making the introductions. The Duty Manager, who was meant to open shop at 08:00, was finally roused after some frantic phone calls and with the humidity already starting to build the day got underway at 9 o'clock.

We did the Beech pre-flight preps. in the hangar :installing the battery, checking the free movement of the flying control surfaces, checking the engine oil level and taking a fuel sample to ensure no contamination. Next the drip tray and chocks were removed and we were ready to push her into the sunshine, firstly across a small concrete apron and then onto the grass paddock before facing her into the breeze. Our efforts had us perspiring freely in the hot and humid air but a perfect flying day awaited. Next the prop was turned over to clear oil from the bottom cylinders and then, with me briefed on fire extinguisher duty, Bob took his place at the controls and we were ready to start-up. The starter button was pushed and eager for action the engine 'caught' first time and clattered rhythmically into its stride. I joined Bob in the right-hand seat and savoured the smell of wood and leather and the sound of this uniquely beautiful aircraft.

The circuit was quiet and we taxied comfortably along the grass runway, as if in a Cadillac, to the downwind end and turned and lined up. Bob ran the power checks and with all well we began the take-off roll with the maize crop to each side of the strip moving ever faster past the wingtips. At 40kt and with the tail already up, the ASI twitched into life and at 85kt we lifted off and climbed out over the Cottonwood trees lining the Missouri River. A loud ratchetting noise accompanied the retracting of the undercarriage as it was powered by an electric motor with a bicycle chain drive and then, with 'two greens' indicated, the engine power was eased back and we settled at 120kts and 2000 feet.

Built as a performance cruiser the Staggerwing will cruise at 180kts without difficulty but as Bob says, "when you joy ride, why waste gas?" It was a good point as the USA was in the midst of the fuel crisis that gripped Jimmy Carter's Presidency and a nationwide highway speed limit of 55 mph had been imposed, so it seemed to be the right thing to say. The next 55 minutes were absolutely brilliant and, as we followed the Missouri River west towards Jefferson City, we were experiencing this classic machine as the early aviators had, and although a 'tad' noisy it was comfortable and sort of homely and, when I took a turn at the controls to see for myself, it was perfectly well behaved. We returned to the Creve Coeur grass strip and taxied up to the fuel pump having used just over 20 US gallons, and once topped-up and with the oil mist wiped clean, the staggerwing was rolled back into the hangar and everything secured until next time.

Bob will be doing this on many more fine Sunday mornings but for me it will be one flight that will live long in my memory.

**NB:** The article was penned in the summer of 1979 in response to the Editor of the Guild of Aviation Artists seeking contributions for the Newsletter from the membership. Where have I heard that before?!

*Editor's note.* At Popham after a little micro-lighting I also happened upon an immaculate Staggerwing in a spotless hangar in the company of a similar vintage large Cessna 165. The Staggerwing owner, pottering with his pride and joy, invited me to enter by the car-type door and sit inside. It was a revelation being beautifully finished with leather seats, wooden trim and neat carpets, just like an expensive car. (the Cessna was similarly furnished). In 1937 even wealthy private owners in the UK were being offered charming but relatively basic aeroplanes by de Havilland, Miles and Percival.

## **FROM GRADUATE TO EARLY RETIREMENT - Part 2 - BACK TO KINGSTON, THREE TIMES, WITH DUNSFOLD IN BETWEEN AND FINALLY AT FARNBOROUGH.**

Chris Farara continues his life with Hawker....

Another periodic visitor to Flight Development was John Fozard when we were testing the P.1127 RAF development aircraft. He had been a recipient of my Monthly Summaries and Flight Test Programmes and had got to know me, especially after I had written a part of the 'Aircraft Engineering' periodical Harrier edition that he had masterminded and had had an article on Harrier flight testing published in 'Vertiflight', the journal of the American Helicopter Association. I had also been on his teams visiting the USA during the Harrier sales drive presenting our flight test programme for the AV-8A and later, with Ray Searle, representing HSA on AV-8A USMC BIS (Navair Board of Inspection and Survey) trials on the USS Guam, the 'Interim Sea Control Ship'. Consequently in 1973 John invited me to be his second personal technical assistant, after Ray who went to St Louis representing Kingston at McDonnell Douglas. So it was off to Kingston for me.

I shared a little office at Richmond Road with Bill Sweetman but spent almost all my time with Chief Designer Harrier 'Foz' in his spacious office at the Kingston end of the design floor. It was a very special experience working with him and learning the how the design organisation functioned, being present at his meetings and going with him on presentations. He even took me with him for the launch of the 'through-deck cruiser', HMS Invincible. It was a small aircraft carrier but that term was unacceptable politically at that time. He was a kind and thoughtful boss as well as being hugely knowledgeable about every aspect of aircraft design, able to discuss problems in detail with his specialist engineers; another story for another time. Ralph Hooper, now Chief Engineer, had the office next door and frequently came in to talk about Harrier matters. John Farley (Chief TP) and Fozard had developed a close working relationship so John was often to be seen in 'our' office. Much of the Harrier's success stemmed from this partnership. The Sea Harrier was Foz's main concern now so he was working closely with Sharkey Ward who was the aircraft's project officer in the Dept of Naval Air Warfare (DNAW). Sharkey was very keen that the pilot's rear view should be improved and wanted a bubble canopy for this fighter but the MoD would not pay for the change. However John persuaded them that the only way to find room for some of the essential new radar system black boxes was to put them under the seat which had to be raised about ten inches, just enough to give Sharkey his view. Other frequent visitors were journalists, Tony Lewis of the PR department and Colin Chandler, a future general manager.

After this I went back to Dunsfold in 1976 as Head of Flight Test Services (new name) replacing Fred Sutton who had been promoted to be Manager, Dunsfold. New people had joined including Mike Sharland, Dick Poole, Trevor Davies, Brian Druce and Tony Smith. Sea Harrier and Hawk testing was in full swing so these were exciting times working with my excellent team and many brilliant test pilots including John Farley, Andy Jones, Mike Snelling, Jim Hawkins, Chris Roberts, Heinz Frick and Taylor Scott. However, my happy life was interrupted by a phone call from Chief Engineer, Ralph Hooper. He told me that the General manager, Colin Chandler, wanted to set up a project management organisation at Kingston and Ralph thought I would be a suitable candidate. He briefed me on the job and I said I would think about it. I decided it wasn't for me so sent Ralph a short note saying "Thanks, but no thanks; it sounds like a short cut to an early grave", thinking that would be that. Next day I got a call from Ralph saying that he had got my note but he had already volunteered me for the job! So, back to Kingston in 1980 as Hawk Project Manager (PM) with Ray Searle doing the Harrier job, leaving Mike Sharland in charge of Flight Test.

Once Ray and I worked out how to deal with an entire aircraft project covering every department in the organisation, not just a bit of Design but also Production, Contracts, Product Support, and so on, in Brough as well as Kingston, I began to feel less overwhelmed. Colin's idea was that the PMs would have no staff except for a secretary and that each function would appoint a project chief, for example: project designer (Roger Dabbs), project production manager (Rory Quigley), project contracts manager (John Mowinski) and project product support manager (Eddie Hunt). The PMs' task would be to coordinate the project work through these function project managers by means of regular project meetings and continual liaison. There was resistance to this change in some areas but in general it worked quite well. In time I had a couple of assistants, including the enthusiastic Mike Ball from Purchasing, which lightened my load, and the job almost became enjoyable; that is until a project director, Len Milsom, was appointed. This heralded the introduction of a full-blown Warton style department managing programmes and budgets with all the planning and reporting that was entailed. So the department grew ever bigger and the work less to my taste. By now the Hawk PM's responsibilities covered all the export Hawks as well as the RAF so there was a lot to keep track of. I was glad when the T-45 Goshawk was split off and Gordon Hodson was quite rightly given that job with which he was so familiar. The enjoyable parts were visits to customers including Finland, Dubai, Abu Dhabi, Kuwait, Indonesia and towards the end, Saudi Arabia. When Kingston became the Weybridge Division of BAe Military Aircraft, Project Management was one of the departments which moved to Brooklands, the plan being to close the Richmond Road factory. However, the next BAe Managing Director reversed that decision and it was the 'Vickers' factory that was closed, many of the people moving to Kingston.

Mike Hoskins was Chief Engineer when he came to see me in 1986 with a proposition. He wanted someone to be his overall technical department chief executive at Dunsfold and asked if I would like the job. Would I? You bet. At my final project meeting a number of my colleagues said appreciative words, especially Roger Dabbs, but Len Milsom remained silent. Then it was back to Dunsfold where I had been given no job description or terms of reference. When I mentioned this to Mike Hoskins he said I

had better write them myself, then!

The post had a number of names over time but the final and most easily understood was Chief Engineer Dunsfold. I had an office in the control tower with the pilots to start with but moved into an annex next to it. It was another coordination job, across the Dunsfold organisation working with Flight Test, now headed by Paul Rash (who had been preceded by Dick Poole), Avionics headed by Don Smith, the Test Pilots, Product Support and Production. Harrier GR5/7 and Sea Harrier FA2 were live projects together with the frequently troublesome Indian Sea Harrier. Big changes were happening in British Aerospace following full privatisation and it became clear to me that the CE Dunsfold position would disappear so it was no great surprise to be summoned to Kingston by Chief Engineer Mike Sharland to be given the “bad news”. As far as I was concerned it was good news; I was to be offered early retirement together with dozens of others over 55 at Kingston. Some did have bad news in that they were made redundant. Mike asked me to quit Dunsfold immediately and return to Kingston to work for him until the agreed departure date, some months ahead. Back to Kingston again!

I had a nice office, at the Kingston end of the fine Richmond Road building, recently vacated by Dick Poole who had moved to Warton as Chief Engineer on Hawk successor projects. My new job was to draw up design organisation quality control documentation for Simon Howison, a totally stress free task. Once a week I went up to London to an outplacement agency employed by BAe to help those being let go to brush up their interview techniques, write career CVs and job applications (long forgotten skills); and to have a nice lunch. (I believe the real reason for this service was to salve the consciences of the BAe management who had chosen to dismiss so many outstanding and experienced people). I had no intention of returning to full time employment as the severance financial provisions were generous. After a month or so Mike asked me if I could stay on a bit longer to finish the quality job, which was nice. He again asked me to see him near my departure date and this time it was more serious; would I like to give up retirement and start a full time job as a department head? I said I would think about it. My reply was no. He was surprised until I explained the favourable tax position on our severance settlement. Instead I offered to return on a consultancy basis but this was rejected by the company. I was at Richmond Road when, after spending millions on updating and expanding the facilities, BAe management had had another change of mind and the factory was closed, so I spent a few weeks at the new Farnborough offices. I also witnessed the heartbreaking sight of the wrecking balls destroying the classical frontage of our famous factory, with its impressive marble entrance hall; since the 1950s ‘home’ to so many fine people and aircraft.

Consequently in 1992 after 32 years (but not long compared to others) with the company in its many forms, I was actually leaving, aged 54. Looking back, the times with HAL, HSA and nationalised BAe were really enjoyable, and I count myself fortunate to have worked with so many co-operative, talented and likeable people, but with privatisation the Kingston organisation was progressively diminished, firstly with the removal of Hawk to Brough and then with the chipping away of departments like Contracts and Purchasing, and the overbearing domination of the Warton design management on Kingston. The precipitate retirement of Ralph Hooper and the sidelining of John Fozard, the two designers who made the post-1950s Kingston great, only compounded my disillusion. I spent my last days in the new Farnborough offices. If you were wondering if there was a Blunder number 4, there was. When I got my engraved 25 years service watch, my name was spelt incorrectly!

As a post script I must say that I soon found a new niche, in the archives at the Brooklands Museum where over the last 30 years I have built up the Sopwith/Hawker/HSA/BAe Kingston collection with donations from many of my old ‘Hawker’ colleagues who fortunately ‘liberated’ quite a lot of material when they retired. Which is just as well as British Aerospace binned most of the extensive Kingston archive housed in the basement of the Richmond Road building. I was also a founder member, with Barry Pegram, of this excellent Hawker Association.

## BOOK REVIEWS

### **Selling Wings to the Dragon by Dick Wise**

Dick started out intending to write the story of the attempted Harrier sale to China and ended up writing nearly 600 pages on the complete history of Britain's aviation trade with China. This is a fascinating story and well worth reading even if the book's size is somewhat daunting at first. However, perseverance brings rewards as so much of this little known story is brought to life by Dick's comprehensive and clear writing. A prologue covers early Anglo-Sino trade from 1596 to 1909, after which, period by period, the story continues to 1996 relating on the way the Trident, VC-10 and Harrier marketing campaigns together with the commercial, political and geopolitical aspects. These sections are particularly fascinating as Dick recounts in considerable detail the activities of which we were only somewhat vaguely aware at the time. Of course, this comment applies particularly to Dick's coverage of the Harrier which included a flight evaluation by a Chinese test pilot with John Farley in the two seat demonstrator, G-VTOL. After all the effort to sell Harriers to China the only aircraft to be delivered was a GR3, XZ965, in 1996 by Ray Hannah, to the Beijing Air and Space Museum. With detailed footnotes, an extensive bibliography and comprehensive index the book (ISBN-13:978-1975677183 – ISBN1975677188) is published by Janus Transatlantic and is available from Amazon at £20.64.

The **Aviation Historian, Issue 44** does not contain anything particularly ‘Hawkerish’ but there are articles of interest to our generation: Keith Hayward writes about TSR.2's political life and death; Chris Gibson, with illustrations by Ian Bott, describes the Bristol Bloodhound and relates its history; and Mariano Sciaroni writes in detail on Argentina's concerns about mainland

attacks by Vulcans and how to defend their bases during the Falklands war whilst Chris Gibson gives the RAF view. However **Issue 45's** cover shows Harrier GR3s over Norway, introducing USAF exchange pilot Colonel John W Zink's article about his time with the RAF. Cdr John Ford recalls day and night dive bombing in Sea Hawks, and Mark Russell gives us the history of the Vickers machine gun and its Sopwith-Kauper synchroniser with more of Ian Bott's excellent illustrations. Tony Buttler describes North American's supersonic fighter projects of the early 1950s including the cancelled F-108 Rapier.

## MEMBERSHIP NEWS

### Membership List - as at 18 October 2023

The list below is what the Committee believes to represent the current membership. If you disagree in any way please let the Editor know.

**The large number of 'Members' who are overdue with their subscriptions are in bold on the list.** Please send £7 cheques payable to The Hawker Association to the Membership Secretary, Diana Dean, Virginia Lodge, 125 Glaziers Lane, Normandy, Surrey GU3 2EA. If you can't remember when you last paid call Diana on 01483 810030. You may pay by bank transfer to sort code 30-92-70; account 0195888; with payment ref surname and initials please so your payment can be identified.

**Non-payers' Memberships will expire at the next AGM.**

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