



THE HAWKER ASSOCIATION

NEWSLETTER NUMBER 22 - AUTUMN 2008

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Website: www.hawkerassociation.org.uk

EDITORIAL

There are still 18 **SUBSCRIPTIONS** outstanding from 2007/8. If you are going to renew please do so now or your names will be removed from the Membership List. For 2008/9 there are 100 renewals outstanding; slightly more than there were this time last year. All your names are in bold in the list at the back of this Newsletter. **PLEASE** send your £5 cheques, payable to the Hawker Association, to Secretary **Barry Pegram** (not to the Editor), at 12 Becket Wood, Newdigate, Surrey, RH5 5AQ, **NOW!** If all the above renew the Association will have 373 Members. If you are not renewing please let Barry know so he can stop worrying. We would also like to know the reason, if you would like to tell us.

To book your tickets for the **Christmas Lunch** on 10 December please see Ken Batstone at a meeting or call him on 01932 229938 not later than the end of November. Partners are welcome. Tickets are £16 each, only £1 more than last year.

I hope you enjoy this Newsletter, especially the personal items. Contributions from Members are always needed! We all have a story to tell!

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PROGRAMME FOR 2008

Wednesday 12th November

"Restoring and Operating Hawker Biplanes". **Guy Black**

Wednesday 10th December

Christmas Lunch at the Hawker Centre, 12.30 for 1.00 pm.

PROGRAMME FOR 2009

Wednesday 14th January

Quiz and social

Wednesday 11th February

"Testing V/STOL Aircraft". **Dr Michael Pryce**.

Wednesday 11th March

"Folland and the Spirit of Hamble". **Chris Hodson**

Wednesday 8th April

Annual General Meeting and video.

Guy Black is the founder of the Historic Aircraft Collection (see NL.16, 'Restoring Hawker Biplanes'), historian **Michael Pryce** spoke to us about Kingston projects in November 2005 (see NL. 12), and **Chris Hodson**, son of Gordon, is Military Programme Manager, GE Aviation, Hamble, and Hamble enthusiast. Also in 2009 John L Parker will tell us about BAES's heritage plans, Colin Wilson will talk on aviation art and Dick Wise will reminisce about his time in the USA.

Unless stated otherwise, meetings are at the Hawker Centre, Kingston - the old Sports & Social Club - and start at 2.00 pm. Lunch and drinks are available beforehand, tea afterwards, and there is a large, free car park.

For tickets (at £16 each) for the always-popular **Christmas Lunch** please contact Ken Batstone on 01932 229938 or at a meeting. Partners are welcome.

RAF CLUB CAMM MEMORIAL

It has been pointed out to the Editor that, in the last Newsletter, No.21, it was implied that the Association was responsible for fully funding the Camm bronze bust. This is not the case; the Association funded the budget over-run of the bust and fully funded the framed information panel. It should also be pointed out that sculptor Ambrose Barber charged only his costs for the bronze, saving the RAF Club several thousand pounds.

EGGHEADS NEWS

The Kingston Aviation Heritage Project 'Eggheads' team has been invited to participate in Series 10 of the quiz starting in the New Year. Sadly, David Cooper, the standby member, died from a stroke in June and two others have had to withdraw. So, three volunteers are needed to join John Gough, Trevor Jordan and Les Palmer, two to take part and one standby. The standby would have to be present at the filming, an interesting experience, but would only actually take part in the unlikely event of a team member being unable to perform due, for example, to an attack of nerves, fainting or an incapacitating accident or illness! Travelling expenses are paid.

Subjects covered are: entertainment, arts and books, sport, politics, history, geography, food and drink, science, and music. Reasonable knowledge in only two or three of these would be needed. We plan a few rehearsals to polish our presentation skills. The current series can be seen on weekdays at 6.00 pm on BBC 2. Also, see NL.20, Spring 2008.

Please do volunteer and so save this initiative to gain publicity, and even funds, for the Kingston Aviation Heritage Project; 'phone Trevor Jordan on 020 8994 2018.

RED ARROWS PETITION

The petition asking the Prime Minister to "Allow the Red Arrows to fly at the 2012 Olympics", following the report that the Department of Culture, Media and Sport had deemed the RAF Red Arrows as unsuitable because they are too British, brought forth the following response from 10 Downing Street:

"This allegation is not true. The Government has not banned the Red Arrows from the London 2012 Olympic Games. The organising committee of London 2012 will decide what to include in the opening ceremony and other celebrations - but with almost five years to go decisions are yet to be made on what these will look like."

Don't hold your breath because this response just passes the buck from the Government to the organising committee which can decide to do whatever it likes. If, as is probable, the committee is loaded with representatives of the liberal left we can expect the Red Arrows to be absent. The petition should have asked the Government to instruct the organising committee to include the Red Arrows.

DUNSFOLD DEVELOPMENT PLAN REJECTED...FOR NOW

A proposal to build a self-contained village with 2,600 houses, including 910 'affordable' homes, on Dunsfold Aerodrome, or Dunsfold Park as it is now known, has been rejected by the Waverley Planning Committee. Some 3,000 objections had been received and serious concern had been expressed by the Surrey County Council, Guildford Borough Council and West Sussex County Council. The proposed development was applauded for its imaginative and environmentally-friendly concept, powered by its own bio-mass generator, which included large open parklands, a lake and amenities such as shops and community buildings. However, there were major concerns about extra traffic on the A281 to Guildford, and other local roads leading to railway stations at Witley and Milford. The fundamental objection to the scheme was that it was in the wrong place. The only support had come from the Parliamentary Agent for the South West Surrey Labour Party. It is expected that the decision will go to appeal in which case there will be a public enquiry with a final decision by the Secretary of State.

WINGS & WHEELS

Another excellent flying and motoring display took place at Dunsfold on 24th August. After a wet morning the clouds cleared at midday for the Red Arrows Hawks to fly against a blue sky. Other 'Hawker' types included a Nimrod biplane from the Fighter Collection, two Hurricanes from the Battle of Britain Memorial Flight and Hangar 11, a Sea Hawk from the Royal Navy Historic Flight and a two-seat Hunter from Delta Jets. 'Lesser' military types were a Typhoon (Eu not HAL), a Spitfire, a Dutch B-25 as operated from Dunsfold during the war, a Dakota and the splendid trans-Atlantic and England-Australia Vickers Vimy reproduction. Stunning aerobatic demonstrations, 'wing-walking' and unbelievable towed and free glider aerobatics made up the flying content. Numerous vintage and classic cars, motorcycles and modern supercars blasted along the runway in true Top Gear manner to entertain a record crowd. If you didn't get there make a note to go in 2009.

HAWK NEWS

The first Hindustan Aeronautics Ltd (HAL)-built Hawk Mk.132, A3621, was handed over to the Indian Air Force at Bangalore in August. A demonstration was flown by HAL Chief Test Pilot Sqn Ldr (Ret'd) Baldev Singh and the aircraft was accepted by the IAF Chief of Staff, Air Chief Marshal FH Major, from HAL Chairman Ashok K Bawena. A contract is expected for 57 more, HAL-built, Hawks of which 17 would be for the Indian Navy.

HUNTER NEWS

On the 8-9 August four Hunters celebrated the fiftieth anniversary of the type's entry into service with the Swiss Air Force in a flying display at former Hunter base St Stephan in the Bernese Oberland, home of 15 Sqn until their F.58s were retired in 1994. Hunterverein Obersimmental's white F.58, J-4040 (renumbered J-4015), is now based there. Also in the display were camouflaged F.58, J-4086, and T.68, J-4205, from the Fliegermuseum, and T.68, J-4201, from the Amici dell' Hunter group. So, the Hunter is still alive and well in Switzerland.

Even more remarkable is the fact that the Lebanese Air Force is returning some of its Hunters, retired in the mid-1990s, to active service. So far three single-seat Mk.70/70As and one two-seat Mk.66 are in service. Two more single-seaters are in the pipeline leaving one single-seater and one two-seater in storage. The 1955 vintage, Belgian-built, single-seat aircraft were originally delivered to the Lebanon in 1965 after conversion to Mk.9 standard at Dunsfold.

HURRICANE NEWS

Hawker Restorations at Lavenham in Kent are restoring a Hurricane IIB to 'Hurribomber' standard with bomb racks. Part of Peter Teichman's Hangar 11 collection the aircraft has completed initial ground runs.

Sea Hurricane XIIA, BW853, was up for auction by Bonhams at the Goodwood Revival Meeting. This Canadian-built aircraft was imported from Canada in 1989 by AJD Engineering of Suffolk. Restoration to flight standard was started in 1994 but work ceased in 1995. On show at Bonhams was a fairly complete but uncovered and engineless fuselage, centre section and tail unit.

SEA FURY NEWS

The first post-rebuild flight of the Royal Navy Historic Flight (RNHF) Sea Fury TMk20, VX281, was cut short by an engine oil leak. A ground run revealed a problem with the Bristol Centaurus.

The Duxford based The Fighter Collection (TFC) has bought Sea Fury TMk20, WG655, from a Californian company. The aircraft was operated by the RNHF until it was seriously damaged in a take-off accident in 1990. It was eventually restored to flying condition by Sanders Aviation, California, in 2005. TFC has also bought Sea Fury TMk20 VZ345, this one from the Disposal Services Agency. This aircraft was one of the red Sea Furies converted at Dunsfold in the late '50s. On retirement in 1974 it was restored at Boscombe Down and used by the A&AEE but suffered a damaging landing accident in 1985. Also currently under restoration at Duxford by the TFC is Sea Fury FB 11 VX653.

SOME BAE SYSTEMS FACTS

Did you know that BAES now employs more people in the USA than it does in the United Kingdom; 44,000 in the US vs 34,000 the UK? It also employs 4,300 in Saudi Arabia, 2,600 in Australia, 1,700 in Sweden and 500 in South Africa. BAES owns 20.5% of SAAB aircraft, 37.5% of MBDA missiles (together with EADS and Finmeccanica) and 33% of Eurofighter GmbH. Annual sales are more than £15.7 billion, the contribution to the UK GDP is £2.4 bn and exports are £4.1 bn. Current orders total £38.6 bn. The range of products includes manned and unmanned military aircraft, surface ships including manned and unmanned submarines, tanks and other military vehicles, artillery, munitions and electronics.

THE FORGOTTEN AIRCREW

Derek Sims recalls his start with Hawkers and his unusual wartime service in the RAF....

In July 1939 I joined Hawker Aircraft Ltd with hopes of an apprenticeship but I had left school at the age of fifteen years and this was not available to me until I reached sixteen. The only job I was offered was that of hall boy in the main hall at the Kingston Canbury Park Road factory, which I accepted. After a number of office jobs I took the advice of my boss, Frank Sherras, head of the contracts estimating department, and went into the works at Langley Airfield near Slough as a shop boy in the electrical department. This, I hoped, would be a start to my apprenticeship. Being hands-on the Hurricane and watching them fly suddenly made me realise that what I really wanted to do was fly them myself; and the only way to do this was to join the Royal Air Force.

So, one lunch time when I was at Kingston, I walked into the RAF recruiting office, presented myself to the recruiting sergeant and asked to sign on for aircrew. He entered my name in his book and gave me a yellow slip which had the time and place of my first medical written on it. When I arrived home what I had done suddenly dawned on me. How was I to break the news to my parents? When we were all sitting down to our evening meal I handed the yellow slip over to my Dad. On reading it he burst into uncontrolled laughter and passed it to my Mum who also roared with mirth. Bemused, I enquired what was so funny about their son going to war in the Air Force? Dad passed the slip back to me on which I read in hard type, "Females are requested not to report for medicals whilst their periods are in progress." I then showed them the other side; I will not go into what followed.

Since I was not 17 1/2 my application needed my parents' signatures and two others of substantial character. Working at Langley I had access to the Pilots' room in the tower, so I walked in and asked Flt Lt Roly Beamont, who was test flying for Hawkers while on rest from his squadron, and Major George Bulman, our Chief Test Pilot at the time, if they would help. They were both good enough to append their signatures. Flt Lt Beamont was great, giving me a real insight into what I was letting myself in for and asking me to let him know when I qualified. Alas, it was not be.

I was eventually called to attend the selection board at Adastra House, London, for three days of medicals, aptitude tests, written papers etc. Unfortunately I ended up in Room 100 with a blue form. On entering I faced four officers who quietly informed me that the tests had shown that I was too short in the leg to fly as a pilot, my maths required some improvement for appointment to navigator, and I was too young to be gunner. They suggested that I join as an electrician, since my civilian skills were of great use, and apply again for aircrew when I was established in the Service. I did point out that the modern aircraft had adjustable rudder bars...which was met with a stony silence.

So, enter AC2 Electrician Sims at the Advanced Flying Training School, Cheshire, trying the patience of the Chief Flying Instructor with constant requests to fly in the Oxfords he had been working on. Then I volunteered to board the boat to the Near East and ended up in the desert on the Suez Canal at 100 Operational Training Unit near Ein Shemer, working on Wellingtons, and was eventually given the task of looking after the Link Trainers until a posting came for me to report to 26 Anti-Aircraft Cooperation Unit, Ramat David, Palestine.

Although an Electrical Tradesman I managed to get myself transferred to the office of Drogue Operator and Wireless Operator (D.OP/W.OP) on board our American twin engined Martin Baltimore light day bombers, provided I carried on in my trade and did the duties thereof. This, after all my ramblings, is the reason for the title of this article, "The Forgotten Aircrew." I was now a full member of aircrew, kitted out with all the flying gear, a set of log books and, best of all, a shilling a day flying pay (5p in today's money). My continuing to do the daily inspections and so on went down very well with the pilots as they felt that as I was flying with them I would make sure that the electrics, at least, would be airworthy.

At the time I was the only D.OP/W.OP and since I was being called upon to fly three or four trips a day the CO requested support. Three Airmen arrived, two having been Drogue Ops since 1942 in Miles Martinet aircraft, originally intended to replace the Boulton Paul Defiant, which had been fitted with drogue winches. These airmen were General Duties Branch with no qualifications other than on-the-job experience and, like me, were a shilling a day better off. We had no recognised badge or rank and as far as I know the situation still exists. I cannot understand how this could be as, after all, the same tasks were carried out by them as the pilot. I was lucky, I had a trade.

Anyway, after nearly two years of streaming ten and twenty foot drogues for the Army to shoot at along the coast from Jaffa to Haifa, calibration runs for the Navy in the Mediterranean whilst at the same time keeping an eye out for illegal shipping, and patrolling the oil pipelines from Persia to Haifa and reporting any terrorist activity by the Stern Gang, my log books (which I still have) showed some 320 hours airborne. Once when towing a ten foot sleeve for the Army at four thousand feet, the skipper and I could not make out why there appeared to be no activity behind us. I took a look out of the mid-upper gun turret to discover black puffs ahead of us! I reported to the skipper who said, "Derek, tell the fools on the ground that we are pulling the b..... drogue, not pushing the b..... thing!" They were laying the wrong distance. So, a Drogue Op's lot was not always a happy one, but a full apology was given by the CO of the gunners who threw a terrific party for us. I doubt that any of the aircrew or gun crews, either in training or on exercises, really gave a thought to who actually operated the sleeve they were shooting at, so I hope I have drawn attention to the work that these unappreciated airmen carried out.

Many happy and not so happy hours were spent on these tasks which terminated when I was called to the orderly room one morning at breakfast to be informed that I was to be repatriated to the UK for entry into Aircrew training. I was to report to Initial Training Wing, Bridgenorth, on the East Coast and, would you believe it, this was the winter of 1946, the coldest on record. But who cared; my dream was about to come true and that, as they say, is another story.

P.1127 TO HARRIER

The report in NL.21 on the Newbold award presentation to Ralph Hooper reminded Trevor Jordan of some interesting events in the P.1127/HARRIER story that he witnessed and participated in...

I count myself very lucky to have been a member of the Project Office on that day in June 1957 when I saw Sir Sydney Camm place the Bristol BE.53 brochure on the desk of the Head of the Project Office, RB (Bob) Marsh. This was the "discarded" brochure to which Ralph refers in his own account of events published in John Fozard's book 'Sydney Camm and the Hurricane', page 180.

Some sixteen years later in early 1973, when the Harrier had been in RAF service for more than five years, two events related to P.1127/HARRIER development took place. The first was in late January when a team of six engineers and technicians likely to be involved in the latest development, the Sea Harrier for which a Ministry of Defence contract was confidently soon expected, spent three days on the old HMS 'Ark Royal' getting acquainted with carrier operations. They were: John Apted who led the team, Richard Cannon, Charlie Cray, John Farrow, one other, and myself. By coincidence the date was just a week short of the tenth anniversary of the first ever jet V/STOL aircraft vertical landing on a carrier - the pilot was Bill Bedford; the date 8th February 1963, the ship Ark Royal.

The second event was on 9th February when Jim Calkin and I gave lectures at the College of Aeronautics at Cranfield on V/STOL performance prediction and evaluation, respectively. For this I had prepared some notes which out of courtesy I submitted in advance to Ralph Hooper, now Executive Director and Chief Engineer, Kingston. In them I had stated, "Ralph Hooper was the Project Engineer assigned to investigate the application of the BE.53 engine to a V/STOL aircraft." Ralph deleted the words "...assigned to investigate..." and replaced them with "...who interested himself, out of curiosity, in..." This was one occasion when the 'cat' was not killed, fortunately for all of us.

Well done Ralph - congratulations!

MORE ABOUT THE P.1129

Ralph Hooper was reminded of the visit to Avro recalled by Ron Williams in the last Newsletter. Ralph was also on the visit and rode uncomfortably, three abreast on the back seat of the taxi, with Camm and Ron, to the 'hotel' which, he remembers, was much like 'Cold Comfort Farm'. They were met there by a quite unapologetic Sir William Farren, the then Managing Director of Avro. None of this improved Sir Sydney's frame of mind. As to the Avro design people present at the meeting, they included Chief Designer Roy Ewans and Peter Robinson, later to move to the Advanced Project Group at Kingston. Roy Chadwick could not have been there as he died in the Tudor 2 crash in August 1947.

A HUNTER 'FLYING CLUB'

Jeff Middleton of Hunter Flying Ltd (HFL), based at Exeter Airport, has written the following piece specially for the Newsletter...

HFL is the largest civilian operator of the Hawker Hunter in the world and is an A8-20, E4, M5, and CAP632 CAA approved operation. The organisation has a wealth of knowledge and a reputation that has been built up over a number of years. This in turn has attracted the attention of Hunter owners who require their aircraft to be restored to airworthy condition, maintained or just dismantled and transported. HFL does not own any aircraft but all the aircraft in their care are maintained and operated for their individual owners. The fleet contains a range of Hunter variants from two-seat TMk 7s and 8s to single seater Navy GA and PRMk 11s. Many of the aircraft are maintained in airworthy condition and appear at air shows throughout the United Kingdom. HFL also rebuilds aircraft to airworthy condition for other operators such as Hawker Hunter Aviation and Northern Lights, the Canadian operator, with whom they have been closely involved. Northern Lights have benefited greatly from HFL's expertise in overhauling and operating the Hunter resulting in a number of joint projects.

The organisation's aircraft fly mostly during the summer months but this can change depending on the requirements of the aircraft owners. HFL's aircraft participate in many air shows during the summer and recently a two-ship display sequence was devised which was flown at Elvington and Duxford in 2007. HFL has celebrated a number of anniversaries connected with the Hunter. These include the 50th anniversary of Neville Duke's speed record, the 50th anniversary of the Hunter's entry into RAF service and the 50th anniversary of the Exeter based FGA Mk 9 XE601's first flight. The most recent celebration was in April 2008 when HFL marked the 50th anniversary of the first flight of another Exeter based aircraft, TMk 7 XL573. This was a special event for HFL because Duncan Simpson, the former Dunsfold Chief Test Pilot who had made the first flight on the aircraft, visited Exeter for the occasion.

The people behind the name, under Chief Engineer John Sparks, are a mixture of former RAF and RN technicians, together with civilian volunteers whose enthusiasm for helping maintain the aircraft helps make the operation work. The pilots are also a mixture of former RAF and RN officers as well as some current Service pilots. One of the pilots, Brian Grant, has the distinction of having flown the most Hunter hours in the world; over 8,000.

The Hunter fleet of airworthy aircraft consists of:

Hunter PRMk 11 WT723. First flown on 11 February 1955 as a Mk 4 by Duncan Simpson it served with No.14 Sqn at RAF Odiham and Oldenberg before conversion to GAMk 11 standard in the early 1960s to serve with 764 NAS (Naval Air Squadron) at RNAS (Royal Naval Air Station) Lossiemouth. Later it was converted to PRMk 11 standard and served for fifteen years with the FRADU (Fleet Requirements and Air Direction Unit) until its retirement to RNAS Culdrose on 23 May 1993. In 1996 it was sold on the civilian market, registered G-PRII, and came to Exeter.

Hunter TMk 8B WV322. First flown on 1 June 1955 as a Mk 4, again by Duncan, it served with Nos 43 and 92 Sqns RAF. In 1958 it was converted to a two-seat TMk8 for the Royal Navy to serve with 764 NAS at RNAS Lossiemouth. To fulfil a requirement for Buccaneer training it was converted to TMk 8B standard and transferred to the RAF to serve with 208 Sqn and 237 OCU (Operational Conversion Unit) whose markings are carried today. The aircraft was sold in November 2000, registered G-BZSE and based at Exeter.

Hunter FGAMk 9 XE601. First flown on 2 May 1956 as a Mk 6 by Frank Bullen it was converted to FGAMk 9 standard in 1965 and flew with 'A' Squadron, A&AEE. Later it chased target drones at Llanbedr, was withdrawn from flying in 2000, joined the Boscombe Down Museum, was sold in 2004, transported to Exeter, purchased by Skyblue Aviation and registered as G-ETPS.

Hunter GAMk 11 XE685. First flown as an FMk 4 on 30 June 1955 by Duncan Simpson it served with 93 and 98 Sqns in the 2 TAF (Tactical Air Force) in Germany at Jever. In 1963 it was converted to GAMk 11 standard and served with 764 NAS at RNAS Lossiemouth, the FRADU at Yeovilton and flew with the 'Blue Herons' aerobatic team. It was retired in 1994, bought by Barry Pover, registered G-GAII and flown to Exeter.

Hunter FMk 6 XF515. First flown on 24 May 1956 it served with 247 and 43 Sqns and subsequently, after modification to 6A standard (brake 'chute and 230 gal drop tanks), went to the TWU (Tactical Weapons Unit) at RAF Brawdy until retirement in the 1980s. After a period at RAF Scampton as a ground instructional airframe it was sold, registered as G-KAXF and arrived at Exeter in 2007.

Hunter TMk 7 XL600. First flown by Duncan Simpson on 7 October 1958, it served with 65 Sqn at RAF Duxford, 111 Sqn at RAF Wattisham, 4FTS (Flying Training School) at RAF Valley, 237 OCU at RAF Honington and finally was with the RAF Laarbruch Station Flight, retiring in December 1983. Via the TMTS at RAF Scampton and RNAS Fleetlands it was sold in 1992, registered G-VETA and based at Exeter.

Hunter TMk 7 XL573. First flown by Duncan Simpson on 17 April 1978, it served with the DFLS (Day Fighter Leader School) at RAF West Raynham, 229 OCU at RAF Chivenor, 4 FTS at RAF Valley, 237 OCU and 12 Sqn at RAF Honington and RAF Lossiemouth, and finally 573 Sqn at Lossie'. It was sold from storage at RAF Shawbury to Barry Pover, registered G-BVGH, and based at Exeter.

Hunter Mk 58A (Swiss) J-4104. Built as Mk 4 XF947 and delivered to the RAF in April 1956, it served with 3 Sqn at RAF Geilenkirchen, 229 OCU at RAF Chivenor before purchase by HSA for conversion to Mk 58A for the Swiss Air Force with whom it served until retirement in 1994 with only 1659 hours flying hours. It was bought by Jonathon Whaley, registered G-PSST and based at Exeter.

Two further Hunters are being restored by HFL at Exeter:

Hunter TMk 8M XL602. First flown on 18 November 1958 as a TMk 8 by....Duncan Simpson on 18 November 1958 it served with 764, 738 and 759 NASs at RNAS Lossiemouth. In 1977/8 it was converted at Brough to incorporate the Blue Fox radar, HUD and other avionics for Sea Harrier nav-attack system development at Dunsfold. Later it served at RNAS Yeovilton as a Sea Harrier systems trainer and with the FRADU before being sold and registered G-BWFT.

Hunter TMk 7 XL612. First flown on 12 December 1958 by Frank Bullen it served with 402 Sqn at Sylt (Germany), 1417 Flt at RAF Khormaksar (Aden), 8 Sqn, RAE Bedford and the ETPS at Boscombe Down. Retired into storage in 2001 the aircraft was moved to Exeter in 2004.

LIGHTER-THAN-AIR VTOL - AIRSHIPS

On October 8th Brian Hussey, supported by Don Williams, talked about airships and their history. Although not professionally involved with airships Brian has a keen interest in the subject and is active in the Airship Heritage Trust, concerned with history, and the Airship Association involved with current and future developments.

Brian started by referring to the Jesuit, Father Francesco de Lana, who in 1670 proposed an aerial ship supported by four evacuated spheres and propelled by a sail. The first manned free-flight, in November 1783, was in a hot-air balloon made by the Montgolfier brothers and flown, for 25 minutes near Paris, by Francois Pilatre de Rozier and the Marquis d'Arlandes. It was believed that it was smoke that gave lift so wet straw and animal carcasses were burned as fuel. Soon hydrogen took over from hot air as the lifting medium and in January 1785 Jean-Pierre Blanchard and Dr John Jeffries flew across the English Channel from Dover to Calais having to jettison ballast and equipment to make it. The powered dirigible, or steerable, airship emerged in the 19th century (Henri Giffard was the first with a steam powered machine in September 1852) and in October 1901 Alberto Santos-Dumont won a £6,000 prize for a flight round the Eiffel Tower in his No.6 airship. By 1903 he was the sensation of Paris using his diminutive No.9 airship as personal transport. Brian showed a charming slide of the airship parked outside a sidewalk cafe whilst Santos-Dumont had some refreshments!

In the UK airships were soon used to advertise products such as Bovril, and for political purposes when two suffragettes flew over the Houses of Parliament in an airship bearing the slogan 'Votes for Women.'

These early airships were of the non-rigid type, without an internal framework, which relied on gas pressure to maintain their shape, so they could bend or sag if the pressure dropped. The invention of the ballonnet, separate air chambers within the gas envelope which were kept inflated by ram air from the propeller slipstream, solved the problem. In the First World War (WWI) the Royal Naval Air Service operated 220 non-rigid 'blimps' on anti-submarine patrols.

Wealthy and aristocratic Count Ferdinand von Zeppelin had ideas for big airships consisting of a rigid girder frame containing gas cells and covered in fabric. His factory was at Friedrichshafen on Lake Constance, south Germany, where he built an enormous floating hangar from which his airships emerged on pontoons, the first flying in 1900. During WWI, from January 1915, Zeppelins bombed England in 53 raids causing 557 civilian deaths. British propaganda called them "baby killers" although the effect of the raids was mainly psychological. Initially effective, the campaign was a failure, Zeppelins being shot down from 1916, and was stopped in April 1918. Such machines were some 540 ft long (Blackpool Tower is 500 ft), cruised at 58 mph and had a range of 2,700 miles.

In July 1919 the British R-34 made the first airship crossing of the Atlantic from East Fortune to New York, returning three days later. On arrival the Captain parachuted down to direct the inexperienced ground crew and on being asked what he thought of the USA replied, "Hard." Two stowaways, Valentine and Whopsy, a cat, became celebrities in the USA. In August 1921 the R-38 broke up and crashed into the Humber. The R-100 and R-101 of 1929 were the prototypes of what was to be a fleet of passenger airships to fly Empire air routes to Canada, India, Australia, South Africa etc. They were, of course, rigids, with a framework of Duralumin covered in five acres of fabric painted with dope containing aluminium powder to reflect the heat from the sun. The gas cells (17 in the R-101) were linen lined with 'gold beaters' skin, ox intestine wall material, which was gas-tight, light, strong and most importantly in view of

the hydrogen contents, did not produce sparks if torn. In July and August 1930, the R-100, built by Vickers, made a successful return flight to Canada, but the R-101, built at the Government factory at Cardington, crashed and burned at Beauvais on the way to India. There were only six survivors amongst the 54 people on board. The dead included the Secretary of State for Air and the Director of Civil Aviation. Subsequently the British airship programme was abandoned and the R-100 scrapped.

In the USA the Navy operated three large helium filled dirigibles for long range reconnaissance. Built by the Goodyear Zeppelin Corp, the USS Shenandoah was flown in 1923, and the later Akron and the Macon in the 1930s. For protection up to five Curtiss F9C-2 Sparrowhawk biplane fighters were carried in a 'hangar' within the hulls of Akron and Macon. They were launched from a 'trapeze' on which the fighters were lowered through the floor into the airstream. Retrieval was by the pilot aiming a probe on a pylon above the upper wing into a loop on the 'trapeze'. All three airships were lost due to weather after which the large rigid airship was abandoned in America. However, the US Navy continued to use non-rigid Goodyear reconnaissance 'blimps' throughout the second World War and up to 1962. Some of these 'blimps' had large early-warning radars inside the inert helium-filled envelopes.

Meanwhile in Germany the Zeppelin factory continued to produce giant airships, the LZ-127 Graf Zeppelin being very successful making 144 Atlantic crossings as well as a round-the-world flight in August 1929. The LZ-129 Hindenburg, the world's largest airship (804 ft long, 135 ft max diameter) flew in March 1936. It carried 50 passengers in great luxury there even being an aluminium framed grand piano in the lounge. The control car had two wheels, one for the steering coxswain and one for the height coxswain. The Hindenburg made the first of ten Atlantic crossing in May but a year later was destroyed by fire when docking with its British designed 200 ft high mooring and replenishment mast at Lakehurst, New Jersey. Of the 97 people on board, 62 survived. The cause was never determined; theories include static discharge and sabotage. The Zeppelins used hydrogen because helium was produced in the USA who would not export the 'strategic' material to Nazi Germany. This was the end of the giant dirigible airship era and the Hindenburg's sister-ship, Graf Zeppelin II, the last of the line, was withdrawn.

Moving on to today, Brian said that there are 30 non-rigid airships in service being used for sight-seeing, photography, publicity etc. As for large machines, there had been proposals from Germany, the USA, South Africa and the Netherlands but none were built due to lack of demand. The Skycat hybrid airship-aeroplane, a twin hulled design using aerodynamic lift and suck-down/hover cushion landing gear has flown as a small scale demonstrator, the Skykitten. The Pentagon was attracted to this concept which was to carry a complete fighting unit of 1,000 armed men with three months supplies of food and ammunition. The small Zeppelin NT (new technology) semi-rigid airship has flown successfully for sight-seeing. Like the Harrier it uses vectored thrust, but from swivelling propellers, for lift and propulsion, the basic aircraft being neutrally buoyant. It has thrusters (reaction controls) for low speed control.

Brian concluded by saying that the airship concept was attractive in many ways but had yet to find a profitable commercial niche. After a long question time and a well deserved vote of thanks Members had the opportunity to look at a wonderful collection of large period photographs, drawings and paintings whilst putting even more questions to Brian and Don.

HERBERT SMITH - SOPWITH'S FIRST DESIGNER

Thanks to Mike Pryce for discovering an article in a 1960 'Flight' magazine by Wg Cdr Norman Macmillan OBE, MC, AFC, who uncovered the story of Herbert Smith by actually interviewing him.

Smith took a Diploma in Engineering at the Bradford Technical College then spent three years in a workshop and one in a drawing office before joining the Bristol Aeroplane Company as a draughtsman. He moved to the Sopwith Aviation Company as a draughtsman in March 1914 and stayed there until the liquidation in October 1920. When he first joined Sopwiths they had no designer. The Chief Draughtsman, Mr Ashfield, had been a school teacher and carried out instructions from Sopwith, Sigrist and Hawker. These three were largely responsible for the 1 1/2 Strutter, the Pup and the Camel, the last two being derivatives of their pre-war Tabloid. Smith believed that nearly all the pre-1914 aircraft were produced from full scale chalk drawings on the shop floor, a 'lofting' procedure he had seen in operation. When he joined Sopwiths they were building the Bat Boat and a floatplane with 200 hp Canton Unne engines. In November 1914 Herbert Smith took complete charge of new design, as distinct from developments of existing types, and was responsible for the Triplane, the Snipe, the Salamander, the Buffalo and the Dolphin as well as many other types, such as the Snark and Cobham bomber, which were not produced in numbers. After the 1920 liquidation Herbert Smith went to Japan as designer to Mitsubishi, where he produced designs based on his Sopwith Cuckoo, returning to England in 1924.

JOINT FORCE HARRIER

A 'must read' for all Harrier enthusiasts is Commander Adrian Orchard's recently published account of operations in Afghanistan entitled "Joint Force Harrier", published by Michael Joseph. Members will remember Cdr Orchard for his talk to the Association in July 2007 (NL.18). In this excellent and well-illustrated book Cdr Orchard explains the demise of the Sea Harrier, the origins of the Joint Force Harrier (JFH) concept, and in considerable operational detail, the story of 800 Naval Air Squadron (of which he was Commanding Officer at the time) operations in Kandahar, Afghanistan. Cdr Orchard is currently Deputy Force Commander of JFH at RAF Cottesmore and was appointed OBE in the 2008 New Year Honours List. He is donating his income from the book equally to Combat Stress, the Ex-Services Mental Welfare Society, and to the Royal Navy Historic Flight, whose Sea Fury he so enjoys flying; another good reason for buying the book.

HAWKERS BUILD FOR THE FUTURE AT KINGSTON

This is the title of an article published in the Surrey Comet of March 7th, 1959, a cutting of which was recently passed to the Editor for the Brooklands Museum Hawker archive. It reads...

"For almost half a century Kingston has been closely associated with the aircraft industry and lays proud claim to being the birthplace of machines which bear some of the most famous names in the history of military aircraft. Mention the name of Hawkers and one phrase springs immediately to mind - renowned fighter aircraft. In all the successes and setbacks that have attended it since its

early days, the people of Kingston have come to look upon the Company as an organisation in which they can take personal pride. The admiration is not one-sided: it is matched by the regard which the Company has for the town.

When, therefore, Hawkers decided to concentrate all their scattered offices on to one site the town was pleased that the new buildings were to be erected on the existing Hawker site at Richmond Road. It strengthened ties between town and Company. A huge new office block housing the Company's administrative section, design and pre-production departments has been built on the Richmond Road frontage. This has meant a break with the Canbury Park Road factory where in a disused roller skating rink, Sir Thomas Sopwith first began designing and building aircraft in 1910. Canbury Park Road remains as a factory and store, but the offices, including the design office, have been transferred to the new building. The new structure in Richmond Road with its clean lines, seems to carry an air of quiet strength. For all its size it does not obtrude but enhances the landscape, hiding as it does the gaunt factory buildings to which it is attached.

A new architectural feature has been given to the town and one which has been praised by the planners as improving the appearance of the firm's Richmond Road property. Of especial interest is the treatment of the facade with its long windows stretching from the first to the third floors. On the ground floor are situated the offices for accounts, buying, material control and printing departments that previously were scattered around the Canbury Park Road premises. Plainly, indeed almost austere, panelled in oak, the boardroom situated centrally on the first floor, is flanked on each side by the offices of the directors and their immediate staff. On the other side of the corridor is a department which is a source of great pride to the Hawker team - the design section under Sir Sydney Camm. He is able to step across from his office and see an army of experts at work on many various projects.

Covering 50,000 square feet on one open floor under a 400 ft span daylight roof, this department has been given an ultra-modern system of ventilation. Fresh air is drawn in, filtered (and warmed in winter) and pumped in after the humidity has been adjusted. Changes of air take place twice a day in winter and five times a day in summer. Next to the design department, and an integral part of its operations are ancillary offices. These include the computing section which has its most expensive piece of furniture, a £40,000 electronic computer which works out problems that could not be attempted by mere humans. On the floor above, and ideally situated for the close liaison that is necessary, is the pre-production department and the offices of many of the executives of the Company.

Behind is the factory floor that stretches back behind the new building into parts of the old. These factory buildings were once the home of the Sopwith Aviation Company. They were built by the Government in the 1914 war as "Aircraft Factory No.1" and were used by Sopwith throughout the war. Temporary structures they should have come down at the end of the war but were allowed to remain. And they remained after Leylands took over the factory from Hawkers in 1928 for the manufacture of lorries and buses. In 1948 Leylands moved north and Hawkers returned to the old home later, when the Hunter was in full production and more space was needed. Hawkers unsuccessfully sought permission to put up a permanent building, but planners refused and so work at the Blackpool factory was started. However, production continued at Richmond Road in the so-called "temporary" buildings. About 100 ft depth was chopped off to provide the site for the new office block, but the rear part remains.

There is almost a monastic calm in the design office and thus it is a dramatic moment for the visitor when he is conducted through the double doors to a platform overlooking the factory floor. Contrasting with the cloistered quiet of the office is the din of the Hunter production floor. Some architects have criticised the front elevation of the new building as being out of keeping with the jet age. They wanted something more contemporary, symbolising the age and the product. Their wishes are however met in the new experimental and research building which had been put up behind the factory and overlooking the river. Its frontage is eminently contemporary as is the entrance hall from which a staircase leads to offices and laboratories on the top floor. Before this building was put up, the experimental department had to be content with space allotted to it in the old factory. Now it has 11,000 square feet all its own, in which to conduct experiments which may lead to further changes in the role of the Hunter. Other work connected with the development of a vertical take-off machine is also carried on here.

Not only have improvements been made for working at Hawkers. Big changes have also been made in the canteen facilities. Dining rooms are set out with tables for four and the most up-to-date kitchen equipment has been installed. A considerable sum has been spent on the buildings and canteen, plus many thousands of pounds on research facilities, laboratory equipment and specialist machine tools. The idea, a Hawker concept, has been to canalise the many processes which comprise the organisation into one place, under one roof. Concentration of all this work at Richmond Road has meant the release of small buildings and factories in various parts of the area, some of them as far away as Teddington, to make for greater efficiency on the part of the men who plan and those who carry out the work."

There were a number of photographs illustrating this article, two were captioned as follows: "Working on advanced calculations is Miss Anne Cole of 108, Banstead Road, Sutton." and "Mrs K King of 110, Park Road, Kingston, working the electronic computer."

What a good, accurate and clear article this is; quite a contrast to contemporary reporting! It will bring back many memories to those who worked in the "huge new office block" or the "monastic calm" of the design office. The opinion of "some architects" of the facade is interesting; I can clearly visualise it, but the "eminently contemporary" Experimental building's riverside elevation has faded from my memory. Ed.

CONRAD SOUTHEY 'PETER' JOHN

Colin Davison is looking for information on Conrad Southey 'Peter' John, born Jahn in Surbiton on 30th April 1905. He joined Hawkers as an engineering apprentice around December 1922 and was a junior draughtsman from December 1925 to January 1926. In 1926 he joined the RAF rising to Flight Lieutenant on a short service commission. He rejoined Hawkers around February 1931, possibly as a test pilot, and probably flew in an aerobatic display for the King George V Jubilee celebrations in 1935. He may later have taken up an engineering role. Probably in August or September 1941 he moved to Glosters as contracts manager and was certainly in that post by February 1942. If any Members can add to this story please e-mail colin.davison@hotmail.co.uk, copy to the Editor, or if you don't have e-mail write to the Editor who will pass your information on.

MEMBERSHIP NEWS

Sadly we must record the deaths of Sadie Simmonds, wife of Jack; Doc Holliday from Technical Publications; and Don Smith, best remembered as Head of Avionic Systems Development at Dunsfold. Condolences to all their families and friends.

We welcome new Members: AV-M George Black, Andrew Keech, Michael Davis, Basil Lockwood-Goose, AV-M Alan Merriman and George Mitchell.

The following have been removed from the membership list as their subscriptions are long overdue: Ian Brine, Tony Herring, Martin King, Ron Leader, Brian Ralton, John Rodd, Helen Saddler, Roger Samways and Frank Tuck.

MEMBERSHIP LIST OCTOBER 2008

A: Mike Adams (a), Ken Alexander, Peter Alexander, John Allen, Martin Alton, Terry Ansty, Alma Apted (H), Steve Apted, John Arthur, Alan Auld, Bryan Austin, Mike Azzopardi, **B:** Brenda Bainbridge, Arthur Balchin, Colin Balchin, Ambrose Barber, Paul Barber, Ray Barber, Derek Barden, Peter Barker, Geoff Barratt, Graham Bass, Ken Batstone, Dennis Baxter, Colin Bedford, Anne Beer, George Black (A), Guy Black (A), John Blackmore, Keith Bolland, Paul Boon, Betty Bore (H), Pat Bott, Steve Bott, Bob Bounden, Alan Boyd, Pat Boyden, Phil Boyden, Roy Braybrook, Clive Brewer, Laurie Bridges, Doug Britton, Arthur Brocklehurst (a), Capt. Eric Brown (H), Peter Brown, Ron Bryan, Christopher Budgen, Maurice Budgen, Roy Budgen, Reg Burrell, Robin Burton. **C:** Richard Cannon, Maurice Carlile, Chris Carter, Bob Catterson, Ken Causer, Jeremy Cawthorne, John Chacksfield, Colin Chandler, Keith Chapman, Keith Chard, Gerry Clapp, JF Clarke, John Cockerill, Hank Cole (a), Bob Coles, Percy Collino, Brian Coombes, Paul Cope, Patricia Cosgrove, Ron Cosgrove, George Cotterell, Nick Cox, Shirley Craig (H), John Crampton, Richard Cripps, Tony Cripps (a), Russ Culley, Richard Curtis. **D:** Roger Dabbs, Clive Dalley, Andy Dalton, John Danse, Afandi Darlington, John Davie, Jo Davies, Ken Davies, Trevor Davies, Charles Davis (a), Michael Davis, Diana Dean, Ralph Denning (A), Norman Deviel, Mike Diprose, Richard Dobbs, Mike Dodd, Colin Dodds, Lambert Dopping-Heppenstal, Jack Dowson, Brian Drew, Peter Drye, Dick Duffell, Jean Duffell, Gwen Duke (H), Chris Dunhill, Mike Dyke. **E:** John Eacott, John Eckstein, Andy Edwards, Dave Edwards, Barry Elliot, Tony Elliott, Eric Ellis (H), Celia Evans, Norman Evans, Roy Evans. **F:** Russ Fairchild, Paul Fairweather, Ian Falconer, Mike Fantham, Chris Farara, John Farley, John Farrow, Max Fendt, Stan Field (a), Geoff Fieldus, Mike Finlay, Wilf Firth, Anne Fletcher, Richard Fletcher, Colin Flint, Dave Fowler, Mike Frain, Steve Franklin, Harry Fraser-Mitchell, Geoff French, Mike French, Heinz Frick. **G:** Roy Gaff, Mike Gane, John Gardner, Patricia Gardonio, Peter Gates, Sandie Gear (H), Tim Gedge (A), Mark Gerrard, Tony Gibbs, John Gilbert, John Glasscock, Pat Goodheart (H), Eric Goose, John Gough, Andy Green, Barry Grimsey. **H:** Douglas Halloway, Liz Hargreaves, Simon Hargreaves, Bryan Harman, Dawn Harris, Guy Harris, Thelma Harris, Brian Harvie, David Hassard (A), David Hastie, Norman Hayler, Eric Hayward, Bob Head, Sheila Hemsley (H), Jock Heron (A), Keith Hertenberg (a), Frederick Hewitt, Merlin Hibbs, Richard Hickey, Peter Hickman, Vince Higbee (a), Reg Hippolite, Keith Hobbs, Chris Hodson, Gordon Hodson, Derek Holden, Richard Hooke, Ralph Hooper, Linda Hopkins, Paul Hopkins, Mike Hoskins, Gerry Howard, Dawn Howes, Terry Howes, Simon Howison, Gordon Hudson, Gavin Hukin. **I:** Pete I'Anson, Len Illston, Maive Impey, David Ince (A), Brian Indge. **J:** Keith Jackman, John Janes, Gordon Jefferson, Harry Johnson, John Johnson, Brian Jones, Ian Jordan, Trevor Jordan, Robin Jowit, Alf Justin. **K:** Andrew Keech, Brian Kent, Dennis Ketcher, Bill King, Dave King, Charles Kirk. **L:** Barry Laight, Mike Laker, Charles Lamb, Richard Lane, George Latham, Paul Latham, Pam Lawrence, Andrew Lawson, Stanley Lawson, Geoff Lee, Gordon Lewis (A), Mark Lewis, Vernon Lidstone, Gary Lillistone, Andrew Lloyd, Gary Lockley, David Lockspeiser, Norman Long, Basil Lockwood-Goose, Gordon Lorrimer, David Lovell, Lynda Lucas. **M:** Albert Magee, Al Mahoon, Mick Mansell, John Marsh, Bill Marshall, Ann Martin/Disspain/Turk, Dennis Mason, Brian Maton, Don McGovern (a), June McKeon, Ronald Mears, Mike Mendoza, Alan Merriman (A), Jim Middleton, Buffy Milford (H), Robert Millar, Jack Mills, George Mitchell, Brian Monk, Pat Moon (H), Leslie Moore, Pauline Moore, Nicholas Morland, Pete Munday, Carole Murphy, Gloria Murphy (H), Martin Murray. **N:** Anthea Newman, Jennifer Nicholas. **O:** Roger O'Brien-Hill, John O'Sullivan, Robin Owen. **P:** Les Palmer, Glynne Parker, John I Parker, John L Parker, John Partridge, Bernard Patrick, John Pearce, Barry Pegram, Martin Pennell, Bill Phillips, Ted Pincombe, Dick Poole, Don Pratt, Dave Priddy, Mike Pryce (A). **Q:** John Quinn. **R:** Clive Radley, Raharto (a), Frank Rainsborough, Colin Raisey, Paul Rash, Diane Raymond, Vanessa Rayner (H), Douglas Realf, David Rees, Peggy Remington, Francis Rhodes, Geoff Richards, Bill Richardson, Chris Roberts, Graham Roe (a), Elizabeth Ruscoe-Pond (H), Chris Russell, Peter Ryans. **S:** Ian Sandell, Bernie Scott, Alex Seaman, Ray Searle, Maurice Shakespeare (a), Mike Sharland, Arthur Sharpe, Bill Sherwood, Douglas Shorey, Peter Sibbald, Jack Simmonds, Duncan Simpson, Derek Sims, Gerry Sims, Charles Smith, George Smith, Harold Smith, John Smith, Karl Smith, Pete Smith, Selwyn Smith, Roy Sparrow, Peter Spragg, Vivian Stanbury (H), June Stephens (H), John Strange, Carroll Stroud (H), Christine Strudwick, Tony Strudwick, Douglas Stubbs, Bill Swinchatt. **T:** David Taylor, Stuart Taylor, Brian Tei, Reginald Thompson, Geoff Tomlinson, Graham Tomlinson, Rod Tribick, Peter Trow, Ron Trowell, Bert Turner, Michael Turvey. **U:** John Underhill. **V:** Herbert Valk. **W:** Terry Walker, David Ward, Harry Webb, Patrick Webb, Graham Weller, Rob Welsh, AP West, Bryan West, Judith Westrop, Jenny Wheatley, **Phil Wheatley**, Jan White, **Mick White**, Roy Whitehead, Peter Whitney, Annette Williams, Don Williams, John S Williams, Ron Williams, Sally Williams (H), Colin Wilson, George Wilson, Paul Wilson, Dick Wise, Helen Woan, George Woods, Len Woodward, Alan Woolley.

(Note: A = Associate Member, a = Associate, H = Honorary Member)