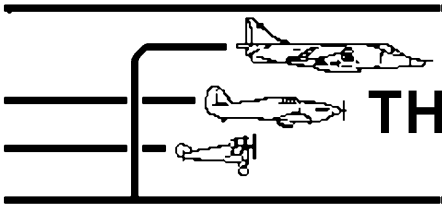

THE HAWKER ASSOCIATION

NUMBER 7 - AUTUMN 2004 Published by The Hawker Association for the Members.

EDITORIAL

Summer, which was late in arriving, has come to an end; but the sun shone on the Association at Middle Wallop. I was very sorry to miss the Museum of Army Flying visit (and the former colleagues who went) which was very well supported and, according to my correspondent, much enjoyed.

There are still quite a few Members who joined before October 1st 2003 who have not yet sent their subscriptions - the names are highlighted in the Membership List at the end of the Newsletter. If you have just forgotten to renew then please send your five pound subscription cheque, payable to The Hawker Association, to Barry Pegram (12 Becket Wood, Parkgate, Newdigate, Surrey, RH5 5AQ). Please include your full name, postal and e-mail addresses, and telephone number as a check on our records. If you don't intend to renew would you please drop Barry a short note anyway, and let him know why. This is so the Committee can look at the reasons and, if possible, correct things which members don't like.

In the Programme below you will see that there will be another Christmas Lunch this year. The last one was very much enjoyed, so book early to avoid disappointment!

'Thanks' to those who sent in contributions to the Newsletter. I'm sure there are lots more of you out there with tales to tell! Don't be modest; send them in - please.

Write to: The Editor, Chris Farara, at 24 Guildown Road, Guildford, Surrey, GU2 4EN.
Tel. 01483 825955

Correction to Newsletter No.6. In 'Hawk Anniversary', the 24th August should have been the 21st. Sorry. Ed.

PROGRAMME FOR 2004

Wednesday 13th October	Talk: "Test Pilot Training." A.V-M Mike Adams.
Wednesday 10th November	Talk: "A Situation Report - BAE S Air Business". Simon Howison (BAES Group Engineering Director - Air Systems).
Wednesday 8th December	Christmas Lunch.

PROGRAMME FOR 2005

Wednesday 12th January	Social gathering with aviation quiz.
Wednesday 9th February	Reminiscences of a Salesman - John I Parker.
Wednesday 9th March	Development of the Boxer Utility Aircraft and Singapore Hunter - David Lockspeiser.
Wednesday 13th April	Social gathering with video.
Saturday 23rd April	Annual General Meeting.

All meetings are at the Hawker Centre - the old Sports & Social Club - and start at 2.00 pm.

CHRISTMAS LUNCH

By popular request arrangements have been made for the second Hawker Association Christmas Lunch. As last year, it will be at the Hawker Centre, on Wednesday 8th December at 12.30 for 1.00 pm. Seating is limited to 100 people and because of the expected demand we are sorry to have to make it 'no partners' again this time. The well stocked bar will be open and there is plenty of free parking.

Tickets at £15 are available on a first-come, first-served basis, by post, with SAE please, from Barry Pegram at 12, Becket Wood, Parkgate, Newdigate, Surrey RH5 5AQ, or from Percy Collino at the November meeting. Please make your cheques payable to the Hawker Association. Cheques will, of course, be returned to unsuccessful applicants.

DUKE PORTRAIT PRESERVED

The following letter dated 2nd September 2004 has been received by the Association from the Royal Aeronautical Society Librarian at 4 Hamilton Place:-

"I am writing to inform you that the pen-and-ink 'cartoon' of Sqn Ldr Neville Duke that the Hawker Association kindly 'sponsored' under the Library's 'Adopt-a-Picture' Appeal has been restored by The London School of Picture and Frame Restoration.

It is now on display in the refurbished Members' Bar/Lounge at the Society's headquarters at Hamilton Place alongside other 'sponsored' cartoons of test pilots from the same series. A plaque on the picture records The Hawker Association as its 'sponsor', the text of the plaque reading as follows:-

Sqn Ldr Neville Duke (Hawker Aircraft Ltd.)
Restored May 2004
Sponsored by The Hawker Association

Thank you again for your very kind donation and interest in this conservation project.
Yours sincerely,
BL Riddle"

If you are up in London, why not call in and have a look at the cartoon which your subscriptions have helped restore? If Members hear of any appeals concerning Hawker aircraft, people or artefacts, please let the Editor know so that the committee can consider supporting them.

MIDDLE WALLOP

On the 1st September, a beautiful late Summer day and, coincidentally, the 60th anniversary of the World War II Airborne crossing of the Rhine, some 37 Association members gathered at the Museum of Army Flying at Middle Wallop near Salisbury for what proved to be a particularly interesting visit. The Museum celebrates over one hundred years of Army aviation with some 35 fixed and rotary winged aircraft on display including the largest collection of military gliders in Europe and Sopwith types from the Royal Flying Corps era.

Les Palmer reports that upon arrival most members took lunch in the restaurant which overlooks the flight line (Middle Wallop is an active military airfield) affording a panoramic view across the rolling countryside beyond. After lunch we were treated to a most informative and humorous presentation about the origins and history of the Army Air Corps, from simple balloons to the present day operations with state-of-the-art helicopters, like the formidable Apache. Following his talk, Lt Col David Patterson, the Curator, escorted members through the exhibition halls, which included Horsa and Hotspur gliders as were flown by Army pilots at the Rhine crossing. In addition to the interest generated by the museum exhibits we were very fortunate to enjoy the Army Air Corps helicopter flying display mounted as a tribute to the anniversary.

Our day was made all the more enjoyable by the attendance of several of our mid-west members including among others Allan and Pam Gettings, Roger Dabbs, and Brian Harvey. It was also a great pleasure to be joined by Keith Hertzenberg who directs Boeing training operations in the United Kingdom, including Middle Wallop.

PEGASUS: THE FIRST YEARS

On 14th July Gordon Lewis gave a detailed and fluent talk on the origins and development of the Pegasus. It was he who took Wibault's swivelling nozzle concept and developed it into the vectored thrust Pegasus around which Ralph Hooper designed the P.1127. The following paragraphs are condensed from Gordon's paper which was illustrated with a number slides showing the various stages in the evolution of the Pegasus.

The first response from Bristol to the Wibault brochure was a memo from Gordon to Stanley Hooker dated 2 August 1956. A sketch showed Wibault's four centrifugal compressors replaced by one axial compressor (fan), thrust orientation being achieved by means of a rotating nozzle on each side of this axial fan casing. Advantages claimed included reduced weight and complication, use of an existing compressor (fan) and a more straightforward installation. Wibault's use of an Orion was retained to drive the fan and some sort of thrust diverter was assumed to vector the residual Orion thrust at the rear of the aircraft. The proposed axial fan had approximately the same performance as Wibault's four centrifugals so it was reasonable to state that the overall performance would be close to that defined in Wibault's brochure. This proposal was Bristols' response to the MWDP who asked them to obtain Wibault's reaction. (MWDP - Mutual Weapons Defense Program. Set up by the USA to fund the development of European defence projects. At this time they were looking for a light-weight V/STOL strike fighter for NATO countries.)

Wibault accepted this proposal with enthusiasm and a scheme for a 'Gyropter' ground attack fighter using this BE 48 powerplant resulted. The BE 48 consisted of a Bristol Orion turboprop driving the first two stages of the Olympus low pressure compressor through an epicyclic reduction gear, the fan and engine each

having a separate air intake to reflect the thermodynamic cycle defined by Wibault. The fan air was exhausted through two rotating nozzles whilst the residual turboprop exhaust thrust was diverted by cascades at the rear of the aircraft fuselage.

It was soon realised that the reduction gear was undesirable incurring high weight, cost and development risk as it had to transmit about 11,000 hp, at high aircraft speeds, resulting in problems of heat dissipation and oil cooling. The solution was to use the Orpheus jet engine as the power source. This single spool turbojet's compressor was the same as the Orion LP spool so the power potential was similar. The overall pressure ratio was lower resulting in higher fuel consumption but this was offset by much reduced weight. This engine was designated BE 52.

Parametric studies were carried out featuring alternative combinations of Olympus based fans and versions of the Orpheus, using major components already in development as it was felt that a possible way forward was via a demonstrator engine. It was also assumed that the residual engine exhaust thrust would appear at the rear of the aircraft so to achieve balance in the hover most of the thrust needed to be provided by the front fan jets.

At the end of 1956 a joint Wibault/Lewis patent was filed covering the rotating fan nozzles and an option of similar nozzles at the end of the jet pipe. The value of contra-rotation of the fan and engine spools to minimise gyroscopic moments was recognised although this was not an immediate option using existing components. It was also recognised that higher performance could be achieved by passing a proportion of fan air into the engine but this had the effect of increasing the exhaust thrust and moving the thrust centre rearwards posing apparent problems of balance in the aircraft layouts assumed at the time.

The study work was recorded in a project brochure which identified the BE 53 as having three stages of the Olympus LP compressor driven by an uprated Orpheus, with separate air intakes, giving a thrust of about 11,000 lbs.

At this stage Short Brothers and Harland, already building their lift engine powered SC 1, were approached. Shorts produced a scheme based on the BE 53 for a joint meeting with the MWDP but used the opportunity to promote the SC 1 and showed no enthusiasm for the single engine vectored thrust solution. This setback resulted in reduced activity at Bristol until May 1957 when Stanley Hooker received a letter from Sydney Camm expressing interest in VTOL and doubting the use of multiple lift engines. Hooker's reply enclosed the BE 53 brochure and started the close collaboration between the aircraft and engine design teams that resulted in the Pegasus and the Harrier.

Ralph Hooper picked up the Bristol brochure and schemed a tentative proposal for a STOL reconnaissance vehicle, based on the BE 53 without deflection of the rear jet. Seeking hover capability Hooper proposed the vital feature of the Pegasus-Harrier combination; the use of two rotating nozzles for the engine exhaust but moved close to the final turbine stage. This originated the "four poster" arrangement which led to a realistic single engined VSTOL project. This bifurcated rear exhaust system so close to the turbine was initially seen by Bristols to present hazards in the form of blade vibration and duct integrity but these were soon accepted when the advantages became apparent. The forseen problems did arise but were solved during early engine development. Ralph Hooper's July 1957 drawing demonstrated the potential for a winning formula and inspired a period of rapid design innovation by close collaboration between the two design teams.

The first consequence of the close coupled rear nozzles was to move the vertical thrust centre forward thereby allowing increased rear thrust. The previously studied by-pass cycle, in which the engine was in effect supercharged by the fan, became viable, increasing the total thrust potential. With a realistic aircraft project in prospect the restraint of using existing fan components was abandoned and a larger two-stage fan was defined, enabling contrarotation to be adopted, as forseen in the early studies and strongly requested by Hawkers.

Stabilisation of the aircraft in the hover was to have been by jets fed by fan bleed air but the large diameter ducts required were very difficult to accommodate. The use of high pressure engine compressor bleed air solved the installation problem but had inherent and severe performance penalties. The solution was to take advantage of thermal lag to allow a significant increase in turbine inlet temperature during brief periods of maximum bleed without exceeding acceptable metal temperatures in the turbine blades.

The nozzle rotation system using an air motor, shafting and final chain drives was evolved as was the Hawker proposal to mount the accessory gearbox on top of the engine where it could be enclosed ahead of the wing structural box. The short intake and the requirement for minimal thrust loss in the static condition was seen as a major problem and became the subject of very close collaboration between specialists in the two companies.

Thus the Pegasus 1 vectored thrust engine was defined, embodying the basic features that have carried through to the engines currently in service.

After a lengthy question time the vote of thanks was given by Ralph Hooper. It was a real privilege to see these two V/STOL pioneers and colleagues together again as they reminisced after the talk and answered even more questions.

MEMORIES OF FINLAND

In 1977 Eric Hayward was based in Finland to assist Valmet Oy who were building the Hawk Mk 51 for the Ilmavoimat or Finnish Air Force. This was a large, valuable and important order for fifty aircraft, and to ensure that all ran smoothly, Hawker Siddeley managers from Kingston made all-too-frequent visits to those who were based there. Eric was inspired by these visits to write the following poem. Anyone who has been an overseas representative will recognise the scene with sympathy.

Editors note. When I became Hawk Project Manager I'm afraid I was guilty of many visits to Valmet. I did try to restrict my activities to the Valmet management, but nevertheless, I recognise much of what Eric has written about with such feeling. Ouch!

They Are Coming

They are coming in the morning with a smile upon their face,
To tell us what we're doing wrong and run the bleeding place.
They will tell us where the mods go and what we should inspect,
And how we should administer, the contract to protect,
With DOIs and DDIs and STIs as well
And other strange phraseology which none but they can tell.

We shall see them here on Wednesday at some unearthly hour,
They'll overfill the office, the whole bleeding shower!
They'll drink up all our coffee, and some may ask for tea
And push off for a sauna in the afternoon, at three.
They'll tell us where the cables go, and what we have done wrong.
We'll do our best to humour them and hope they won't stay long.

We will have many meetings, and some will talk for days
Of 'force majeure' and 'delay claims' and many devious ways.
Then when it all is over and they're back where they've begun,
They'll pat eachother's backs and say 'A good job, mate, well done!"
And then all, in the evening, return to their hotel,
And drink of vodka, gin and booze, and get as pissed as hell!

They are going back on Friday, it cannot be too soon!
If they leave the time they say they will they should be home by noon,
With all the booze and duty-free that they can safely carry.
The cold out here will drive them back, we don't think they will tarry.
And they will tell of all they've seen - and of the fools they've met,
And promises made they cannot keep - without thought or regret!

A CAREER IN THE LIFE OF LEN HEARSEY

The following is abridged from a memoir published in the Hawker Siddeley News in 1975 when Len retired.

I joined Hawker Aircraft Ltd in 1939 at Brooklands and was immediately transferred to the Experimental Department at Langley which was housed in an area adjoining the paint shop and was surrounded by scaffolding and hessian to keep nosy parkers from the all important aircraft; at that time the Vulture powered Tornado. Next came the Typhoon and I went with it to the Aircraft & Armament Experimental Establishment at Boscombe Down to assist with maintaining it during service trials. When the first squadron of Typhoons was formed Hawkers set up an experimental-cum-service department and I was the first HAL representative at RAF Duxford with 56 Squadron. Ultimately I finished up at Newchurch - 'Doodle-Bug Alley' - with 150 Wing where I was seconded into the RAF as a technical representative with the rank of SDO (Special Duties Officer). As D Day approached I followed the Typhoon and Tempest squadrons into France.

In April 1945, when with 135 Wing at Uden, Holland, I was recalled for posting to the Far East with the Tempest II. The crated aircraft were shipped to Karachi, India then, where a production line was set up assembling enough aircraft for two squadrons. I was fortunate in having the opportunity to travel widely over the following 15 months and see India in all its glory.

In 1948 I was sent by Hawkers to assemble two crated Sea Furies in Canada. One went to Watson Lake, Alaska, for winterisation trials whilst the other was cocooned at Edmonton to see how the aircraft stood up to those climatic conditions. Next I went to assist the newly formed Royal Pakistan Air Force which had

Tempest IIs, left in India by the RAF and divided between India and Pakistan under the terms of the partition. Later, new Sea Furies began to arrive. The C in C was Air Marshall Atcherly, who on retiring from the RAF became a director of Folland Aircraft and later of Hawker Siddeley Aviation.

Egypt was my next port of call after that country also bought Sea Furies. I witnessed Neville Duke's arrival when he gained the London-Cairo speed record. Back in the UK I worked with the Royal Navy Sea Fury squadrons and also was with the Royal Australian Navy on HMAS Sydney as the 21st Carrier Air Group worked up. My next ordeal was promotion - Assistant Service Manager to John Gale.

The Company broke into the South American market by selling Hunters to Peru and I led the team which was to uncrate and assemble the 16 aircraft at their destination. Our problems during the assembly programme, which was carried out in the open air, were many and varied. The day we arrived in Lima in February 1956 I was informed that all the Hunters were required to fly on National Day, July 28th. This was very ambitious but we managed to carry it out.

In September 1958 I arrived in Cuba for the assembly of 17 refurbished Sea Furies which had been crated and shipped to Havana. A colleague, Derek MacKay, and myself, together with Cuban Air Force personnel, started work. This proceeded very well until one evening the manager of our hotel asked if I had heard the news from Venezuela. Naturally I hadn't, and even if I had it probably would have meant nothing to me. He told me that the Freedom Front leader, Senor Castro, had broadcast on Radio Venezuela, quoting my name and room number, holding me responsible for assembling the Sea Furies that were bombing and gunning his troops. He gave me three days to get out of Cuba! That night Derek and I locked ourselves in our room with a bottle of Scotch and the next day moved out of the hotel and into Campo de Columbia, the Air Force headquarters. We stayed there until our departure after we had more or less completed 12 aircraft, then returned to England.

Early in 1961 I was asked to replace the retiring experimental supervisor at Dunsfold, Bill Turner. Naturally I could not reject this offer although it would mean that my wanderings were finally over. In February I took over the Dunsfold Experimental Department as Assistant Experimental Supervisor responsible to the Experimental Manager at Kingston, Mr Rowe. I was immediately involved with the development flying programme of the prototype P.1127 from which we have developed the Kestrel and Harrier.

The experience I have gained both technically and in travelling for and on behalf of Hawker Siddeley Aviation could not be measured and I am indeed grateful to this company for affording me these wonderful opportunities.

HAWKERS IN THE FIFTIES

Ambrose Barber was lucky enough to learn to fly as a young National Seviceman in the early 1950s. After leaving the RAF he flew as a part-time instructor at Fair Oaks until he answered a Hawker Aircraft Ltd advertisement for a flight test technician at Dunsfold aerodrome. Even before he started work he had...

AN ENCOUNTER WITH CAMM

In 1956 Hawker's design team was still based at Canbury Park Road and it was there that I was called for interview with Bob Marsh. During this I learned more of what the job at Dunsfold as flight test technician would entail. Bob headed up the design projects and it was the role of his Project Office to be the conceptual 'sharp end' of Hawker's leadership in fighter design. From time to time projects gave birth to prototypes and his department had a small section at Dunsfold to brief the test pilots and monitor the results. The Hawker P.1067 was undergoing continuous development as the single-seat Hunter, and the first P.1011 two seater would soon be joined by a second prototype. Bob's Technical Office at Dunsfold was run by Fred Sutton, for whom I would work and, yes, the new two-seaters might provide the occasional opportunity for a flight test observer.

The interview seemed to be going quite promisingly when in walked the commanding figure of Sydney Camm, Hawker's revered chief designer. Sir Sydney asked various questions which he addressed through Marsh, starting with "Where's he been?" and followed by "What's he flown?"

Bob looked at me while I reeled off seven types, some of which I thought should go down quite well, until prompted by Camm's unimpressed snort, I realised that none of them had been designed by the great man himself!

WAR BIRDS DESIGNER

Bob Coles took early retirement from the Full Scale Layout Department of the Design Office in 1992 and since then has worked privately to assist the 'warbird' community in the south of England. This involves repairs, the design of missing structure and modification drawings, for World War II aircraft. He works in conjunction with a retired stressman to obtain Civil Airworthiness Authority approval of his design work. Such is his reputation that the CAA now gives only a cursory look at the drawings before granting approval. Although this takes little time, the CAA still charge the standard fee! The majority of his work has been for Stephen Gray's 'Fighter Collection' at Duxford, and although specialising in the Hurricane, an aircraft Bob has

been studying since encouraged by Sydney Camm when he joined the DO in the early 1950s, he works on a wide variety of interesting problems on American, Russian and other foreign types as well as British. Bob enjoys this home based work very much because it brings him into contact with many interesting people in the 'warbird' community, and their projects. The following story recounts a recent experience which Bob assures us is true...

READ MY ELIPSE

Security, linked to the prevention of terrorist threats, is beginning to affect us all. This year the Media Accreditation pack (the Acc Pack) for the SBAC Farnborough week included a separate declaration for the Hampshire Constabulary; but I didn't expect a visit!

One June morning whilst deep in thought and attempting to plot the somewhat tricky retraction geometry of a Curtiss P-40N undercarriage leg (this is the Kittyhawk/Warhawk series of aircraft), there was a tap-tap at the front door. My drawing board and 10 ft x 4 1/2 ft lofting table were covered with geometry details for this leg which retracts directly aft and at the same time rotates through approximately 90 degrees. The object of the exercise was to double check that the undercarriage door, a replacement design, wasn't going to close prior to the wheel getting up into its 'nest'.

Answering the door I was confronted by Kenny, our local beat Bobby. I know Kenny quite well, having had a few friendly discussions with him at the time, a few years ago, when I thundered around the village driving a 454 cu in Chevrolet 'Chevy' Corvette Stingray rated at about 350 BHP and sounding like a Banshee. Some of you may remember seeing this vehicle, blue in colour, in the Ham Common works car park.

"Hi," said Kenny, "My boss has sent me along to see if you are who you say you are. "Oh," I said, "Yes, I'm definitely me; or I was whilst having a shave this morning...Is there a problem?" "Don't really think so but the boss says he's been watching you for some time." Now curious I invited Kenny in for a cup of coffee. He immediately spotted my drawing board with all those mysterious lines and shapes. "Cor, look at that," he said, and I could tell he was thinking maybe, just maybe, his boss was onto something big. "What's up with your boss then?" I asked. "Well, he believes you are a member of the notorious and fearsome Al Gebra cult...and here we have it! Maps (as he called my geometry) marked up with Xs, Ys and Zs. We've been trying to crack this code for some time! Also, we know Al Gebra is a world-wide organisation," he said, pointing to some Greek symbols, theta, phi and delta, "because of these secret code names referred to as 'unknowns'. We have determined these 'unknowns' belong to a 'common denominator' of the 'axis' of evil with 'co-ordinates' in every country." "Crikey," I said and at the same time pinching myself to see if this confrontation was just one of those bad dreams...it wasn't!

As I arrived with the coffee Kenny was inspecting my setsquares, compasses, protractors and calculator. "What are these, then?" he asked. Still thinking this might all be a funny dream I glibly told him that they were weapons of 'math instruction' and, getting into the swing of this whole strange affair added "And if God wanted us to have even better weapons of math instruction he would have given us more fingers and toes. After all. statisticians love to inflict 'plane' on every 'sphere'; we have to 'differentiate' their 'root', make our 'point' and draw the line somewhere."

I am convinced that Kenny now realised he was getting out of his depth; but seconds later he spotted something more tangible. Standing on the end of my lofting table was a complete 40 mm cannon shell. Some 14 inches high and with a mean-looking sharp end, this had been used to help create some authentic looking dummy cannons for a tank-busting Hurricane Mk IV rebuild. It was jolly lucky he hadn't also noticed one of my souvenirs, a genuine Kalashnikov AK 47, hanging on the wall. Kenny moved in to take a closer look at the shell. "Bl**dy Hell," he muttered, slurping coffee down the front of his tunic, now probably convinced that his boss was onto something. I explained to him that things were not always as they appeared. As the Greek philanderer Isosceles used to say "There are always three side to every triangle." However, Kenny was looking rather nervous and decided to leave, somewhat more rapidly than he arrived. Taking a final gulp of coffee he made for the door.

Passing through the porch on the way out he failed to notice a couple of underwing rocket rails standing in the corner. These are acting as pattern parts for a future Tempest rebuild...but that's another story! In the relative safety of outside Kenny informed me that he would send the boss along to take a look for himself. "Okay," I said, but as yet nothing has happened; I'd better hide some of this kit, just in case!

ps I made it to Farnborough.

POST WAR HAWKERS

Roy Whitehead joined Hawkers 57 years ago on 1st September, 1947; the day that Camm's first jet, the P.1040, made its first flight. Aged 16, straight from Wimbledon Tech. where he had completed a two year Secondary School course in Engineering, he became a junior technical assistant in the Experimental Research

Office, an offshoot of the Canbury Park Road Experimental Department. Below, Roy recalls those early post-war days at Hawkers.

MEMORIES OF 42 YEARS AT HAWKERS

In early 1948 Leylands were beginning to relinquish their 20 year occupation of the old Sopwith/ Hawker factory on the Richmond Road at Ham. It had been leased to them some time after the 1914-1918 war when the need for fighter aircraft diminished. The old building with its plain frontage and curved rooflined was, in 1948, still decorated in its random green, black and grey Second World War camouflage. When Hawkers started to re-occupy the site the Experimental Department was among the first to move in.

For a while Leylands were very much in evidence and their machine shop with its overhead shafting and noisily flapping belts driving the lathes and other machinery was quite a sight. They were still finishing off a number of huge tank transporters. Once they had left, other departments from various Hawker factories gradually moved in. For quite a while Gloster Meteor rear fuselages were being built where many Sopwith aircraft had been built during World War I.

I can remember seeing a film, made in the 1950s, which recorded the building of the new office block with that much missed, beautiful and elegant frontage. Included in that film were a few shots from 1948. One showed the prototype Sea Hawk, VP413, trundling down Tudor Drive on its way from Canbury Park Road to the Richmond Road factory. There it was, early on a Sunday morning when there was very little traffic about, proudly being pushed on its own undercarriage around the back streets of Kingston by some of the men from the Experimental Department.

Leylands left behind a vast quantity of scrap metal in the space between the rear of the factory and the fence alongside the river path. It was in a clearing in this area that the first engine run of at least one of the prototypes was carried out. We were not provided with ear defenders in those days and the occasion did nothing to help Hawkers' relations with the neighbouring residents a hundred yards or so away in Dukes Avenue.

Later some of us were roped in for a few days to help man the massive Abbey Test Rig at our airfield at Langley near Slough. The bare airframe of a Sea Hawk was in the rig undergoing structural testing. There were probably about twenty of us, each allocated to a capstan on top of the rig. The capstans were connected by means of a mass of rods and spreaders to the wings and fuselage, the latter being firmly attached to the base of the rig. We were told how many quarter turns to make, and when. We were also informed that we weren't applying loads to the airframe; oh no, we were just taking up slack! Quite rightly, none of us believed a word of that statement. After some time gradually applying the load there was an almighty bang and the whole rig seemed to jump a few inches. This, we were told, was because the airframe had failed at, I think, 110% of the design failure load. This seemed to please the stressmen present as it had not broken at a loading below 100%, their calculated limit.

As we looked down at the now crippled airframe below us we could just see the lower legs of the head of the Stress Office, Henry 'Roche' Rochefort, almost disappearing into the port jet pipe fairing. He had gone in head first with a torch to inspect the damage inside. I remember my boss, 'Jumbo' Betteridge, telling me that he had visited 'Roch' at his home and they had gone into the workshop, at the bottom of the garden, that he had designed and built himself. Typical of the keen stressman that 'Roche' was, the design of the roof structure was very much over-the-top and it looked as though it would resist everything that the weather might throw at it, including a tornado, and possibly even an avalanche.

DUNSFOLD PARK

It's no longer Dunsfold Aerodrome, but Dunsfold Park now that our historic workplace is owned by the Rutland Group. Your editor visited the site recently and was impressed with its neat, well cared for appearance. Rutland's offices are housed in the old administration building next to the Senior Mess and several of the buildings house small businesses, and of course, BBC's 'Top Gear' motoring magazine programme is filmed in the Experimental Hangar and out on an airfield circuit made up from the runway and sections of the perimeter track. While I was there a Dodge Viper was being exercised.

Events are to be staged there and a very successful 60th Anniversary D-Day concert was mounted on 5th June. Attended by 9,000 people, £75,000 was raised for the Cranleigh Village Hospital Trust. The highlight was the appearance of a Spitfire flying to the Royal Philharmonic Concert Orchestra's rendering of Walton's 'Spitfire Prelude and Fugue.'

Chief Executive Jim McAllister is keen to recognise the 'heritage' of the site and hopes to have a 'visitor centre' illustrating the history of the airfield. The Hawker Association will, I'm sure, be involved when that time comes. Jim McAllister operates an 'open door' policy regarding community issues or concerns. To receive the professionally produced Dunsfold Park Newsletter write to: The Rutland Group, Dunsfold Park, Cranleigh, Surrey GU6 8TB or telephone 01483 200900. There is also a website: www.dunsfoldpark.co.uk.

HAWKER ASSOCIATION MEMBERS - SEPTEMBER 2004

Please note that if your name is in bold type then your subscription is due - please see Editorial

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We are sad to record the death of Johnnie Johnson. Our sympathies go out to his relatives and friends.

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