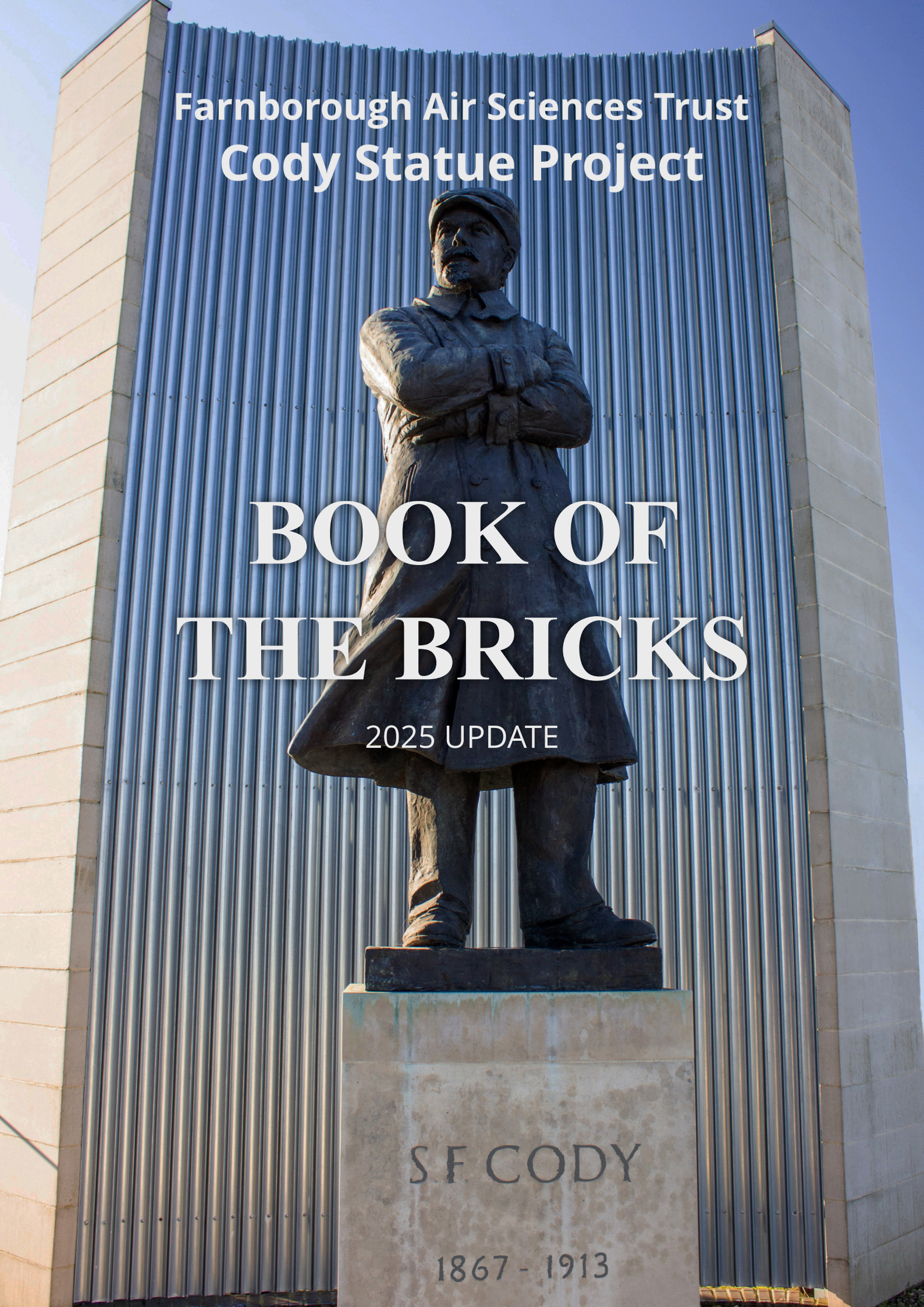
Farnborough Air Sciences Trust

Cody Statue Project



BOOK OF THE BRICKS

2025 UPDATE

Farnborough Air Sciences Trust

BOOK OF THE BRICKS

FIRST PUBLISHED April 2014

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ACKNOWLEDGEMENTS

The production of this book and its remodelling would not have been possible without tireless efforts of the following people (some for nearly a decade):

- David and Ann Wilson
- Paul Charleton
- Claire Pateman
- Kathryn Stuart
- Maurice Shakespeare
- Mary Thompson
- Sam Collins at Waving Moose Communications

INTRODUCTION

Samuel Franklin Cody was the first person in the United Kingdom to make a controlled sustained flight in a powered, heavier-than-air machine. He was a significant aviation pioneer, having started with the development of kites. He had gone on to be awarded Fellowship of the Royal Meteorological Society for his weather-related experiments with kites, and had assisted in the development and build, at Farnborough, of the British Army's first airship, Nulli Secundus.

After designing and building British Army Aeroplane Number 1, in which on 16 October 1908, he became Britain's first pilot, he went on the build a succession of aeroplanes with more practical applications. These included an aircraft which won the British Army Trials at Larkhill in 1912. An American citizen at the time of the first flight, Cody took British citizenship in 1909.

On 7 August 1913, whilst giving a pleasure flight over what is now the Farnborough Airfield, he suffered a structural failure of his aircraft and Cody and his passenger, a Mr W H B Evans, were thrown from the aircraft at a height from which fatal results were inevitable.

At the time of his death, Cody was very well known in the UK and extremely popular with the crowds who attended any activities associated with flying. His funeral attracted huge crowds who lined the route from his home near Ash Vale Station to the British Army Cemetery in Aldershot, where his grave may still be seen.

Unfortunately, his aircraft company could not survive without him and, a year after his death, World War 1 was declared. The resulting emphasis on the further development of aircraft, and the funds so invested, meant that Cody's pioneering work was almost forgotten. The Farnborough Air Sciences Trust (FAST) - with a great deal of help from Mrs Jean Roberts, who lives in the house occupied by Cody at the time of his first flight and who has researched, for many years, the true stories behind the legend - has been working to commemorate Samuel Franklin Cody in ways which properly reflect his status as Britain's first pilot.

To this end, a replica was built of the first aircraft, to commemorate the centenary of that first flight, which was opened to the public on 16 October 2008. It may be seen at the FAST Museum in the Cody Pavillion.

To commemorate the centenary of Cody's death, a statue was unveiled on 8 August 2013, on a site close to the museum and to the access roads used by him when coming from his home to his place of work. The Balloon Factory, as he would have known it, went on to become the Aircraft Factory, the Royal Aircraft Factory and, in 1918, the Royal Aircraft Establishment (RAE). The site of the statue has been designed to accommodate an area to be covered in paving bricks bearing the names of individuals and companies who, in contributing towards the cost of the statue and its surrounds, were happy to have their names included on the site.

Behind each brick, there is a story. This, then, is THE BOOK OF THE BRICKS…

FOREWORD

When the Cody Statue was in the planning phase, I happened upon a number of air museums in Australia and in the USA which had engraved bricks, either as pavers or as wall tiles, and which carried the names of those who had donated towards the various schemes intended to enhance the museums. Believing that this could be a means of helping to fund the Cody Statue project, it was agreed by the Trustees of FAST that such a scheme could be introduced.

As the design of the site was developed, Laurence Peskett, the designer, included a dedicated area near the statue which would be accessible to the public and would provide a pleasant space in which to exhibit the engraved bricks.

As more and more donations were received from people requesting bricks, either for themselves or for loved ones, (many of whom had a long experience of the Royal Aircraft Establishment, but also many with no RAE background), I began to realise that, behind each brick was a story, which would perhaps be of interest to all. A 'Book of the Bricks' would therefore allow the recording of a good deal more information than could be conveyed by the brick alone, and the many and varied stories would record little bits of personal and public history which would otherwise be lost.

My thanks, therefore, are due to all those who have submitted stories. They have been included as they have been written and we cannot vouch for the accuracy of the information they contain; nor can we be responsible for any comments which may relate to former colleagues mentioned in the narratives.

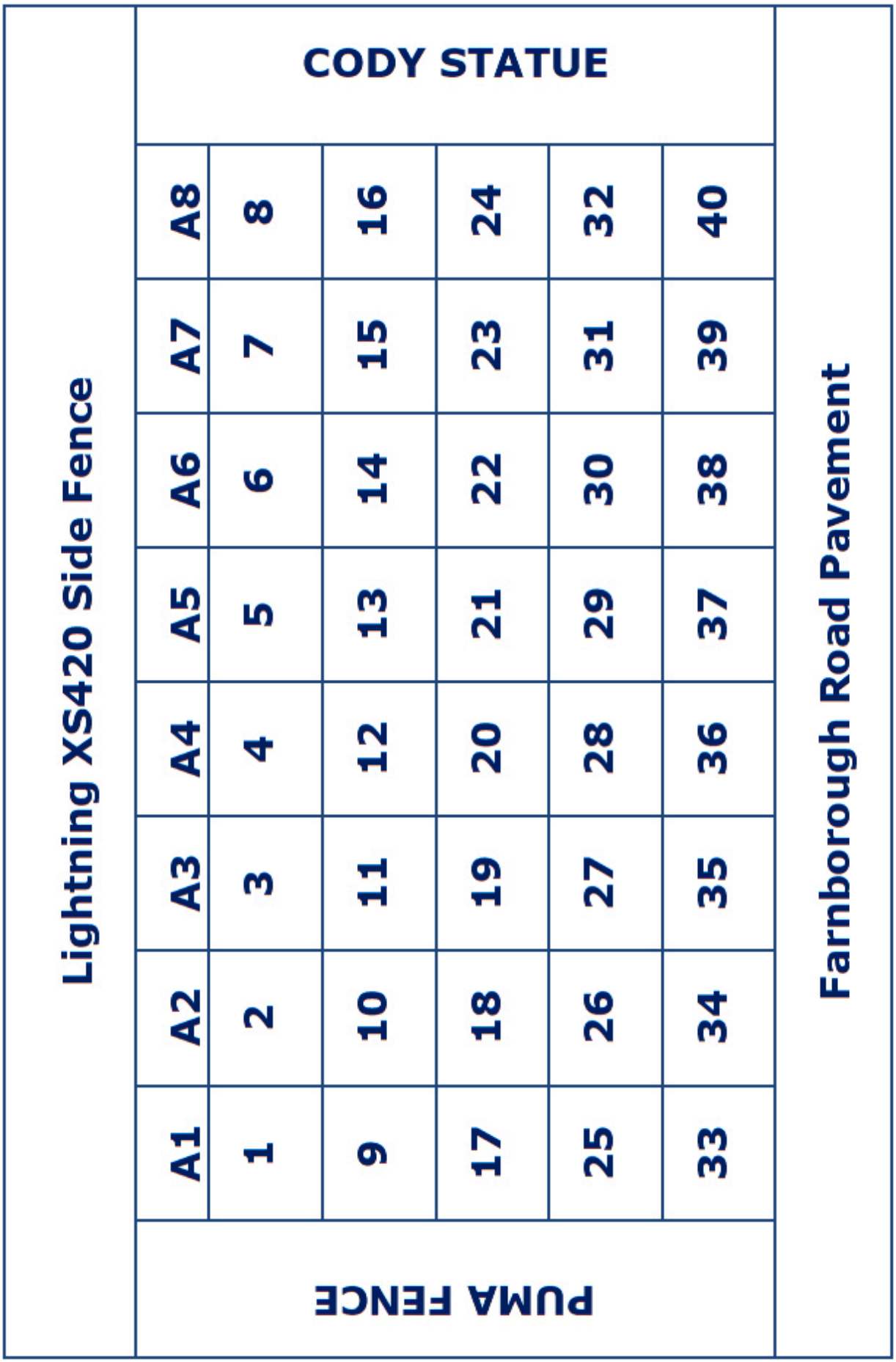
As donations are still being received, and having to draw a line somewhere, I must also apologise to all those whose stories did not make it into this edition; we are working hard on the next edition and hope it will be available shortly.

My very sincere thanks are due to Paul Charleton who has done all the work on this edition of the book and is continuing with the next edition. He has been helped substantially by Claire Pateman who has been a tower of strength in all of the work done to administer and order the bricks, as has my wife, Ann.

The statue is all but paid for and we are now working to establish a small fund for its maintenance for the long term. The Trustees and the volunteers of FAST are very proud of the statue commemorating Great Britain's first pilot and we hope that all those who have helped to pay for it are pleased with the result.

David Wilson
Cody Statue Project Manager, FAST
April 2014

COMMEMORATIVE BRICKS PAVEMENT LAYOUT



RAE Road



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Brick No. 56 in Square 24

Reginald WHITTON 367
Brick No. 294 in Square 30

Patrick WILDING 368
Brick No. 380 in Square 13

Paddy WILDMAN 369
Brick No. 285 in Square 39

Alfred C. J. WILLIAMS 369
Brick No. 744 in Square 26

Walter WINKWORTH 370
Brick No. 619 in Square 19

N. WINTERBOTTOM 371
Brick No. 1 in Square 8

S. WINTERBOTTOM 371
Brick No. 365 in Square 8

Charlie WOOD 372
Brick No. 333 in Square 38

Dennis WOOD 373
Brick No. 332 in Square 38

Ian WOODFORD 373
Brick No. 361 in Square 40

Bill W. WRIGHT 377
Brick No. 791 in Square 2

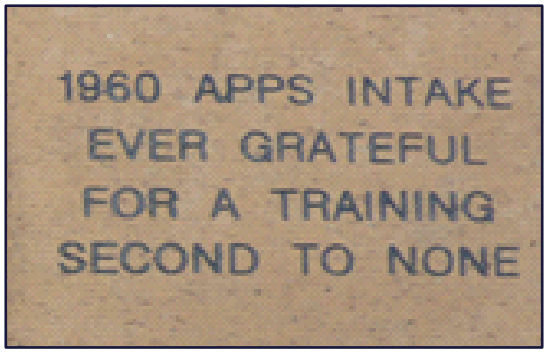
Jennifer YARNEY & Maureen PAYNE 378
Brick No. 263 in Square 14

George & Dora YATES 378
Brick No. 622 in Square 27

BRICK STORIES

1960 RAE Apprentices Intake

Brick No. 351 in Square 24



The RAE Apprenticeship Scheme ran for 73 years, from 1918 until it closed upon the creation of the Defence Research Agency in April 1991. Prior to 1918, there had been a 'Trade Lad' scheme which began in 1910. Whilst no more apprentices were taken on after September 1990, the normal start date, those in training continued under a combined RAE/DRA apprenticeship until final closure in 1994. Over these many years the scheme changed according to the requirements of both outside industry, for whom the scheme was intended to benefit (UK Plc), and that of government research, where technological advances dictated.

Recruitment
Lads between the ages of 15 to 18 years usually heard about the RAE apprenticeship scheme through their school 'careers' organisation. Craft Apprentices tended to be more local to Farnborough, with many having relatives already working at RAE, whereas Student Apprentices came from all over the country.

Craft Apprentices were selected following a paper sift and were invited to attend a series of initiative tests held at RAE Farnborough. One initiative was to bend a length of wire into a particular shape, starting with having to find the centre of the piece of wire. RAE Farnborough based their selection on these tests combined with school final year examination results.

Student Apprentices (O' level) were invited to apply through a Civil Service 'Open Competition' within, at that time, the Ministry of Aviation and War Office. They had to attain five O' levels, including maths, English, and one science subject to qualify. They had to travel to London for their initiative tests, which were carried out at the Ministry's Training Centre in Gower Street. These tests included the above bent wire dexterity test.

Student apprentices (A' level) applied to the Civil Service for a student apprenticeship at the RAE. They had to have a minimum of 2 A' levels in maths and science, and were chosen based on results. Those selected were invited to visit the RAE with their parents prior to starting their training. For this 1960 year, a total of 96 Apprentices were finally registered, including several from a Liverpool company that closed in the early 1960s and transferred to RAE in our 2nd year. The 96 were split between Student & Craft Apprentices in the ratio 12 to 84. Students were also split between O' and A' level entries (in 1960 the ratio was seven O' to five A') one of whom was a NGTE apprentice (Viv Roberts).

Prior to the 1950s, apprentices were recruited as 'Craft' and 'Engineering' Apprentices; the latter covering Drawing Office, and Student O' and A' level.

First Year Training
All of the successful applicants carried out their first year's training in building P68, which was a brand new purpose built engineering training centre located in the heart of the factory site and only opened fully for our 1960 intake year. It comprised specialist areas covering fitting, turning, milling, sheet metalwork, brazing and welding, with six skilled craftsmen instructors (Mr Haynes – Milling; Mr Foulstone – Sheet Metal & Welding; Mr Sturk and Mr Ellis – Fitting; Mr Walker and Mr Collins – Turning. The Senior Instructor was Mr Dickinson). Overall in charge was a Senior Supervisor, the legendary Digger Armstrong, ably assisted by Eric Chandler. (See photograph below). In charge of Apprentice administration was Mr Dennis Hobbs.

The supervision and administrative functions for all apprentices was contained in this same building - something which was unique in the history of RAE apprenticeships, which had previously always 'fitted in' with existing engineering facilities and departments. Of the eventual 1960 intake of 96 apprentices, 3 were NGTE Pyestock apprentices (Alan Spencer and Jeff Mobbs (both Craft) & Viv Roberts (O' Level). At this time Pyestock did not have practical 1st year training facilities and relied upon the RAE. These 3 lads 'disappeared' to Pyestock after this first year and were only seen again during part-time day release college days. Several of the apprentices either dropped out, or were asked to leave during this first year and, as noted above, several apprentices joined this intake after their Liverpool Company (Lucas?) closed its apprentice training scheme.

Part time studies for all of the remaining apprentices during this first year were undertaken at the Farnborough Technical College which, since 1959, had been run by Hampshire County Council (HCC). Previous to 1959, all tuition had been managed by RAE, who set up their own technical college in 1948 in the former 'Star Hill' Convent buildings. The last RAE College Principal, Mr Peggs, died quite unexpectedly in February 1960 and when the 1960 apprentices arrived in September, they were unaware of this pre-HCC history.

Craft Apprentices
Upon completion of the general first year training, the RAE Craft lads were allocated to the following trade disciplines:

- Aircraft servicing, modification and maintenance (2) (Roger Bricknell & Dick Maynard)
- Electrical and electronic (6) including: Chris Sirmon; Dick West; Iain Shaw; Owen Forder & Peter White.
- Instrument Makers (26)
- Sheet Metal (1) (Phil Swann)
- Toolmakers (21)

NOTE: Semiconductors were just appearing commercially in 1960, but it wasn't until 1964 that the first year training shop, P68 building, was extended to create a specialist area for 1st year Electrical and Electronic training. Prior to this, and because trade streaming was not carried out until towards the end of that first year, all electrical and electronic apprentices did the same basic general craft training as other apprentices.

These groups were now directed to the RAE departments responsible for the various disciplines. For a further 2 years, there were periods of specialised training, including Drawing Office, Inspection and Welding, in approximately 4 week periods with other occasional departmental attachments. The final 2 years were spent in the chosen trade department (main instrument shop or tool room) prior to either an offer of full-time employment at the end of the 5 year apprenticeship (which ended on the individuals 21st birthday) or of leaving RAE to work in outside industry.

Student Apprentices
O' level students - Upon completion of the general first year training, the O' level students spent some 18 months in various workshops, each under the guidance of a nominated apprentice master. This time included short periods in the main machine shop (33 Dept), fitting shop (including gas & electric welding - 38 Dept), instrument shop (44 Dept), tool room, pattern makers (wood shop), inspection departments, plating shop, forge and foundry, and aircraft flight sheds. For the final 2½ years, students spent time in various departments, eg IAP (Instruments & Photographic), Drawing Office, Wind Tunnels, Structures and Guided Weapons Department. During this period, longer spells were spent attached to trials departments, involving such things as experimental cargo dropping and ejection seat trials, with detachments to Salisbury Plain and the Pendine rocket sled track in South Wales. Towards the end of this period attachments away from RAE Farnborough were possible, eg Graham Pike had a 6 week inspection course at AID Harefield followed by time with resident AID staff at various contractors, such as Rotax and DeHavilland. In their final year, Students were interviewed and offered either a permanent junior engineer post in a Ministry or advised on further career opportunities.

A' level students started their degree course in their second year, attending lectures at the Farnborough Technical College in a building previously designated as the RAE Technical College. Students attended lectures five days a week for part of the year and then were attached to RAE's technical departments for practical experience.

Academic Training
During their 5 year apprenticeship, those not taking the degree course enjoyed part-time day release plus evening classes for studies leading to nationally recognised qualifications. Craft Apprentices attended college one day per week plus one evening and were expected to attain a City & Guilds qualification after 5 years. This, coupled with their practical training, would lead to the award of a 'Full Technological Certificate' in, for example, Machine Shop Engineering. For some craft apprentices who demonstrated particular aptitude, there were opportunities to transfer across onto more advanced studies, eg ONC / HND, under RAE apprentice supervision and college guidance. Student O' level apprentices studied ONC Mechanical and Electrical from the outset, requiring 2 days release to college plus evenings. Those successful at ONC followed a Higher National Diploma (HND) course.

In their first year the O‘ and A’ level students did their workshop training but spent less time than craft apprentices and more time in college. They all took the same exams at the end of the first year and then some were selected to go on the aeronautical degree course at the Farnborough Technical College. Previously this course was run by the RAE Technical College, which was set up to integrate academic degree work and practical application gained by attachments to RAE’s technical departments. After the first year, degree course students spent periods of five days a week with lectures on aerodynamics, thermodynamics, structures and material, servomechanisms and electronics, physics, maths, general studies and physical training. In summer months they were attached to RAE’s technical departments, such as Aerodynamics, Shock Tube, Guided Weapons, Electronics, Structures, and the Drawing Office. In their final year (fifth year), they spent some two months on a project in the RAE that provided technical and practical experience, and they wrote a report that formed part of their final year’s degree. The degree course was linked to a university, and the honours degree was awarded by The Council for National Academic Awards. After their degree course, some apprentices went on to take university MSc courses, others to work in the RAE or industry, such as Rolls Royce, or other occupations. Their degree made them eligible to apply for graduate membership of the Royal Aeronautical Society and the Institution of Mechanical Engineering.

Maurice Shakespeare
FAST Heritage Group
Thanks to Graham Pike for O’ level and Graham Gillies for A’ level information and advice
31 January 2025

1960 RAE Apprentices First Year Training Shop Apprentice Instructors



Mr Dickinson leaving presentation June 1961, with the1960 Apprentices supervision team

Left to right:-
Mr Sid Sturk (Fitting), Mr Collins (Turning), Mr Walker (Turning), Mr Haines (Milling), Digger Armstrong (Senior Supervisor), Mr Eric Chandler (Deputy Supervisor), Mr C F Dickinson (Chief Instructor), Mr Sid Foulstone (Sheet Metal), Mr Bunny Ellis (Fitting)



1960 RAE Apprentice Veterans visit to Brooklands Museum, formally BAC Weybridge, Surrey. 13 May 2013



1960 RAE Apprentice Veterans visit to Boscombe Down Museum, Old Sarum, Nr Salisbury, Wiltshire. 17 May 2019

Stephen ALLCOCK

Brick No. 607 in Square 35



Stephen Allcock was one of the first engineers to work on an early digital computer – the English Electric DEUCE. This was used in the Electronics Department of the then English Electric Company (Aircraft Division) at Warton for the design and testing of aircraft. From 1956 to 1988 he progressed through the various guises of the company, which became today's BAE Systems, to the design and management of the ground station for flight test data recording for five military aircraft – the Canberra, Lightning, TSR-2, Jaguar and Tornado. He visited Farnborough on numerous occasions in conjunction with this work. The brick was donated by his family who feel his small but important part in safer flight should be remembered.

Dennis H A ALLEN

Brick No. 220 in Square 39



RAE Service 1976 – 1992

Senior Administrative Officer to two RAE Board of Management Members combining support for RAE Chief Engineer (Ron Martin) & RAF's CO Experimental Flying Dept. (Gp. Capt. Reggie Spiers).

This interesting post gave me a broad insight, spread over several years, into many of RAF's then major projects. It also necessitated considerable monitoring of related support services, including many visits to those at RAF's four satellite airfields. Amongst recalled projects were long term fatigue testing of the Concorde; commissioning and operation of the 5 metre Wind Tunnel; operation of the RAE Air Fleet; development of the RAE Apprentice organisation; massive support for the SBAC Air Shows; airfield fire fighting and safety developments, and many others.

Amongst these experiences was the rueful incident when our new high speed Jaguar, fitted out as an airfield fire tender, attended an aborted Devon aircraft take off (due to engine misfires). The Devon shuddered to a halt half way down the runway and passengers tumbled and fell out to avoid any fire risk. The Jaguar pursued the Devon at maximum speed, but the car's brakes were not as good as the Devon's and it struck one of the staggering passengers, causing a broken ankle, before stopping. The Jaguar was quietly redeployed on other duties thereafter!

I very frequently used RAF's Transport Flight aircraft to visit our outstations. When we had a particular RAF Navigator on duty, these flights were made more interesting by flying low over various National Trust properties en route (as the Navigator was a keen member of that Trust!)

There were many other tales, too numerous to recall twenty odd years after the event. We also arranged and supported social awareness with a number of high profile evening dinner events attended by senior MOD ministers, Air Marshals, local authority and educational leaders etc.

Head of Stock Control

My previous purchasing management experience resulted in my latter years service spent as Head of Stock Control for RAE. My supply work combined both civilian and RAF stock

holdings amounting to some £18m (at 1988 values) and impinged on all RAE Departmental activities. The work included financial control and physical checking of the Establishment and its outstations' vast plant and equipment assets. Whilst much of this dedicated activity proceeded smoothly, one only had to encounter some unforeseen delay in purchasing supplies to bring any affected project to an abrupt halt (with howls of anguish from senior management). Nevertheless much credit was reflected on Supplies Branch at the time of the first UN invasion of Iraq, when immense quantities of RAF's military and civilian stores were moved at great speed, by our working 24/7, to UN forces in the Middle East.

During my service at RAE I was a long serving committee member of the RAE Staff Mess and helped organise and participate in many social events. These enjoyed Establishment wide support and the presence of the Director and Board members on many occasions. A number of these Mess events, particularly the Cheese and Wine evenings, were at times absolutely hilarious and over-subscribed. I feel that this support from all classes at RAE made it a particularly sociable Research Establishment. I reflect on these times with much affection and pleasure.

Joan M ALLEN (neé SCAMMELL)

Brick No. 220 in Square 39



RAE Service 1944 -1990

Joined RAE (age 14) initially as a Messenger. One year later I had the opportunity to train as a typist in the RAE Typists Training Centre (then located at-the Jubilee Hall near Farnborough Station). I remained within the Typing Service serving many Departments of RAE for the rest of my career. In1955, from a copy typist role, I was first promoted to Typist Supervisor, then Senior Superintendent. Then in 1976 I became Chief Typing Manager for RAE and its Outstations (which later included Pyestock) until my retirement in 1990.

The departments served were varied - firstly the RAE Physiological Laboratory (which later became the RAF Institute of Aviation Medicine). Then followed Stores Provisioning, IAP (Instrument and Photographic), Radio Dept's Outstation at Ambarrow Court (a country house near Crowthorne), SME (Structures and Mechanical Engineering), Space and Weapons, then the General Administration area - which included my running of the Centralised Dictation Service set up in 1974. I found the work throughout very interesting.

The 'Phys Lab' (1945) was involved with the testing of Mae West Life Jackets in their in-built swimming pool. The Sqn. Ldr. In charge took the onus on himself to do this - first having to be sedated at the Cambridge Military Hospital in Aldershot. I had the opportunity to witness the swimming pool action through a trap door in the ceiling above on the Phys Lab premises. Other staff were working on a project for pilots night vision. In that connection, in any free moments civilian and RAF staff had, we were asked to sit and pull petals from African marigolds (grown by Kew Gardens) that were then dried and made into tablets for this research use. Another initial study in the Phys Lab in 1945 was Decompression Chamber testing of young pilots. After the pilots' decompression was complete they were unaware and amazed to learn that their condition allowed their watches etc to be taken from them in the Chamber. (All given back to them later, of course!).

Just for information, the Phys Lab was run by two joint heads, a civilian and an RAF Officer - Dr Matthews and Wg Cdr Winfield. The latter was known to have piloted Winston Churchill during the 2nd World War! I found out later that the Wg Cdr had written a book which mentioned this, and discovered that the RAE Library held a copy which I was able to read!

Structures Accident Section of course was involved with the Comet aircraft accidents in Italy and the Mediterranean (shown on TV recently). The Court of Inquiry was later held in R177 Bldg. The Structures Accident people were also involved with a later airliner accident (Britannia?) in the Irish Sea when RAE staff went out to collect debris in fishing boats. It was heart-rending for us to type up!

H M The Queen visited the Structures Concorde Test Facility on 6 June 1966 - an easy date to remember (6/6/66)! Sir Robert Cockburn was RAE Director at that time.

Mechanical Engineering had the well-known engine scientist, Miss Shilling, among their workforce, who was famed for originating the Spitfire's fuel injection mechanism. (On lesser aspects, she was also noted for wishing to dictate to the shorthand writer at lunch time!!!)

Our staff also supported both Space and Weapons Departments' work (including their liaison with overseas Blue Streak and Black Knight projects at the Woomera Range in Australia).

On casual aspects, staff working in IAP/Q177 Bldg (1951) had a passing interest in witnessing some external filming scenes for Neville Shute's film '*No Highway'* which starred Cary Grant. This film was being shot on location in the adjacent Structures Laboratory at the back of Q153 Bldg next door. (A house on Farnborough's Hawley Estate was also being used for other inner house scenes!).

In 1945/46, RAE implemented the Government's Further Education scheme for young school leavers, like myself, to attend College one day per week.Classes were held, first in pre-fab huts near the Jubilee Hall, later at Farnborough Grange whose grounds also housed an RAE Hostel for employees. These premises were all later demolished and became part of the Hawley Estate.

Mark J ALLEN

Brick No. 400 in Square 13



Mark Allen started work at the RAE as an apprentice Instrument maker in 1970. He worked his way up through the workshops to become an HPTO. In latter years he worked on Night Vision Equipment. He survived the transition from RAE to DRA to DERA and to QinetiQ and was finally made redundant in 2009 aged 56.

Ray ALLEN

Brick No. 683 in Square 18



“We decided to have a brick engraved on behalf of my father as he was such an avid fan of aviation. He loved everything about the Farnborough Air show and Cody. He had lived in Farnborough since 1957 and attended every Air show until his death in 2008 (aged 90). We attended as a family for many years. The Red Arrows were always a favourite. He was also very interested in Samuel Cody’s life and achievements and eventually found his grave (after much research) in the Military Cemetery. I think my father would be very proud to be associated with the Statue.”

Sydney ANDERSON

Brick No. 832 in Square 25



The story behind the engraved brick donated by Mrs Shena Forbes is in memory of her father Sidney Drummond Anderson who joined the RAE after the First World War. Before this he had obtained a degree in Electrical Engineering at Liverpool University and eventually went on to become Head of the Engineering Dept at RAE until his retirement in 1957.

“We lived in Farnborough and I remember when I was a child, my father would sometimes take me down to the RAE on Sundays. His office was one long building with a space for each person at a huge table and for my benefit he would turn on the wind tunnel – it was deafening!”

David ATKINSON

Brick No. 221 in Square 39



David started work in C Shed as aircraft finisher (Painting). Moved to 31 depot when that finished as a painter, and finished up in maintenance dept at 60. He put in over 25 years and received his I.S.M. Medal.

Grace ATKINSON

Brick No. 221 in Square 39



Grace, started work in 31 Dept, known as Cody's, doing all sorts of sewing and sticking. She worked at relining the Dakota, tail plane of S.E.F., and flaps of the Comet. She went to RAF Halton to train as a Survival Equipment Worker, and worked as such, servicing flying clothes and packing Jaguar Brake Chutes until flying finished at RAE. In all, Grace put in 20 years.

David ATTRYDE

Brick No. 808 in Square 10



I started my craft apprenticeship at RAE Farnborough In September 1963.

On completion of the apprenticeship in 1968, I joined weapons department as an Electronic Craftsman 1. During my time in this department I was involved in preparing electronic and mechanical test items, also various flight and sea trials.

I resigned from the RAE in October 1973 and joined Chubb intruder alarms.

I believe that the RAE apprenticeship scheme at that time was second to none. It gave me an excellent grounding in all aspects of mechanical and electronic engineering that helped me in my entire working career.

Jack ATTRYDE

Brick No. 809 in Square 10



On completion of his student electronics apprenticeship at RRE Malvern, Worcestershire in 1962, my brother Jack transferred to the RAE at Aberporth Dyfed. Where he was employed as an assistant experimental officer. He was involved with maintenance and calibration of the range telemetry equipment.

In 1969 he transferred to RAE Farnborough and was promoted to higher scientific officer. He worked in the OTF department dealing with optical systems testing and calibration.

He resigned from the RAE in 1975 and joined the Ministry of Health at Basingstoke hospital.

Unfortunately Jack died in 1996.

Peter ATTRYDE

Brick No. 810 in Square 10



I started my electronics apprenticeship at the RAE in 1991. On completion of my apprenticeship in 1995 I transferred to NGTE Pyestock as a craftsman.

I was made redundant from Pyestock in 1997 and went to work at Chubb intruder alarms. Like my father, I feel that the apprenticeship has helped me immensely throughout my career allowing me to bring a wide range of skills to the jobs I have had, and allowing me to work in a wide variety of industries, from Aviation to the NHS.

Janet R BABIC (neé Maybury)

Brick No. 215 in Square 22



I was only employed for six years at the RAE but those years have had a huge impact on my life and I remain in contact with several of my friends from those days. Along with one of those friends, I started out as a Learner Tracer in a class of about ten (our teacher was Miss Gadsby). The training involved six months, four days class work and one full day a week at Farnborough Technical College. What fantastic training we received and getting paid for it too (first wage 3 pounds eighteen shillings a week). After the first six months we were placed in various drawing offices for on-the-job training and moved periodically to other departments for further experience. Promotion involved being up-graded, after interviews, to 'Tracer', then 'Drawing Office Assistant' or others would become 'Leading Tracer'.

I left the RAE in 1966 when, being a restless 22 year old, I felt I needed a change. Just before emigrating to Australia in 1968, I worked for the Southern Electricity Board, in Aldershot, as a Cartographic Draftsperson.

My RAE experience did me proud on arrival in Australia. I worked for Consulting Engineers 'Rankine & Hill' as a draftsperson drawing air conditioning plans and wiring diagrams. Later, after a working trip around Australia, I worked for 'Haden Engineering' as a draftsperson in the Sydney Opera House on air conditioning systems again. The Opera House was a concrete building site at the time. That of course was my favourite job; the drawing office had wonderful views of the harbour and Harbour Bridge.

Many years later, after raising four sons, I worked for Armidale Dumaresq Council as a draftsperson. This involved a variety of work, including sewer and water plans for new sub-divisions, Development Control Plans and house drainage diagrams for conveyancing purposes and council records.

While there, I embarked on a Town Planning degree at New England University, while working at Council part time and bringing up four sons alone. Guess who got top marks for drafting assignments! On graduation in 1995, I was given various projects involving energy efficiency assessments for new buildings, green-house gas emissions and wood heater particle emissions. Since then, I have worked for eight years as a Town Planner at Walgett Shire Council (a vast Council area geographically but small population wise). My understanding of plans, maps etc. and ability to draft was an invaluable tool for carrying out development assessments and dealing with public queries and I found myself still updating plans (which involved tramping through the bush on boiling hot days looking for the evidence of uncharted water and sewer lines) and providing drainage diagrams as before (multi skilling is a necessity in a small Council situation).

I will always be grateful for the training and work I received at the RAE and that my Father, Leslie Harold Maybury, (who was a Leading Draftsman for several years and worked on

aircraft-carrier arrester designs) made me join the RAE at age 16 when I didn't want to work “in a stuffy old office” but he said I must have something to fall back on and that I would be able to get a job “anywhere”. I wanted to further my ballet training (much more glamorous) and become a teacher (which I have done anyway for several years in outback Australia and, at the awful, creaking bones age of 69, now attend ballet lessons once a week with some very young and supple uni students).

Well I certainly ‘fell back on’ my RAE experiences; it has been the keystone of my whole working life.

I thoroughly enjoyed my visit to the FAST Museum in March this year and look forward to visiting again in the not-too-distant future and take snaps of the statue and our bricks. It was great to see the Lightning parked there, my all-time favourite aircraft, and now I feel motivated to get on and build the model I bought a couple of years ago!

Keith BAGOT

Brick No. 887 in Square 3



I started in Space Department RAE in September 1971, working on satellite data systems and in particular on data problems on the newly launched X3 satellite – the only time a UK satellite was launched on a UK rocket. The natural radiation environment in space and the effects on electronic components were then studied and this culminated in my design and build of an experiment to investigate the degradation of MOS transistors in space. It was designed for the X4 satellite but finally flew in 1979 on UK6. I joined the thermal modelling group at the end of 1973 working on computer modelling of heat flows in the UK6 satellite (to maintain 'room temperatures' inside the satellite as it moved round the orbit, in and out of shadow etc). I reworked the solar simulation chamber in Y60, and conducted tests on UK6 thermal models. My first international collaboration started at this time on a UK/German/Dutch satellite for X-ray astronomy, called EXO. The ideas were subsequently adopted by the European Space Agency (ESA) in EXOSAT. For a year and a half starting in early 1976, I worked at Comsat Labs just outside Washington DC, on computer modelling of gas flows from gas jets on spacecraft. This was applied to Intelsat communications satellites to estimate the disturbance torques caused by gas molecules hitting solar panels and the like.

On my return to RAE, I joined the remote sensing group, which was concerned with visible/IR/radar sensors on satellites and the use of the collected data. My work included the development of an image processing system (IDP3000 built by Plessey), a high quality colour film writer and, on behalf of the Department of Trade and Industry (DTI), promoting the use of remote sensing data by undertaking projects with colleges and industry. Over the next several years,

the remote sensing work included the development of an in-house image processing system called GEMS, and of a stereo camera system called OMI. I worked with French colleagues to fly OMI on the French SPOT5 satellite until DTI withdrew their support. I ran several programmes, some with ESA, on satellite to satellite communications using microwave and visible/laser systems. I joined an international group in Cologne reporting to ESA on the possible uses of the ESA contribution to the International Space Station - 'Columbus'.

In 1994, I changed direction and led the DRA/DERA/Qinetiq technical support to MoD on the procurement of the Skynet 4 stage 2 communications satellites. This involved Farnborough, Malvern, Defford, Portsdown and Fort Halstead on all aspects of the satellite design/build, the rocket, the orbit, the operations of the satellite and of the communications systems. Three satellites were successfully launched at the end of the 1990's to 2001, and were successfully operated. Support continued to the operations staff at RAF Oakhanger, the army at Blandford, and the navy in Portsmouth until I retired in August 2004.

David BAINES

Brick No. 362 in Square 5



He was a very clever man and as well as being a scientific officer at the RAE he was also able to mend cars, build walls and a garage. He also extended his bungalow by moving the staircase and adding an upstairs bedroom.

A quick summary for you: My parents moved to Farnborough in 1951 when my father, David Baines was employed by the RAE. Around 1964 -1970, he went to work at SVTL in Haslemere. Apart from testing valves I do not know what he did. At Farnborough he worked on arrester gear for aeroplanes and I know he went on the Ark Royal. We sent some photos of the gear to FAST a few years ago. I remember seeing long johns threaded with small tubes - prototype space suits He did quite a bit of work on the microphone head sets for use in flying helmets; he worked on how well the equipment worked and also how the equipment fitted the wearer.

As a family we were the guinea pigs for the moving walkways that can now be seen at all modern airports. I suppose I was about four or five and with my Mum and sister we walked on and off the walkways sometimes with bags and others used pushchairs. One of the original ideas was to use two or three walkways to increase the speed and so we stepped on to faster moving walks. I also remember we had to step on sideways which was much harder than the current walk forward design.

On retirement he spent time in the gardening club as a volunteer.

Mike BAKER

Brick No. 1167 in Square 14

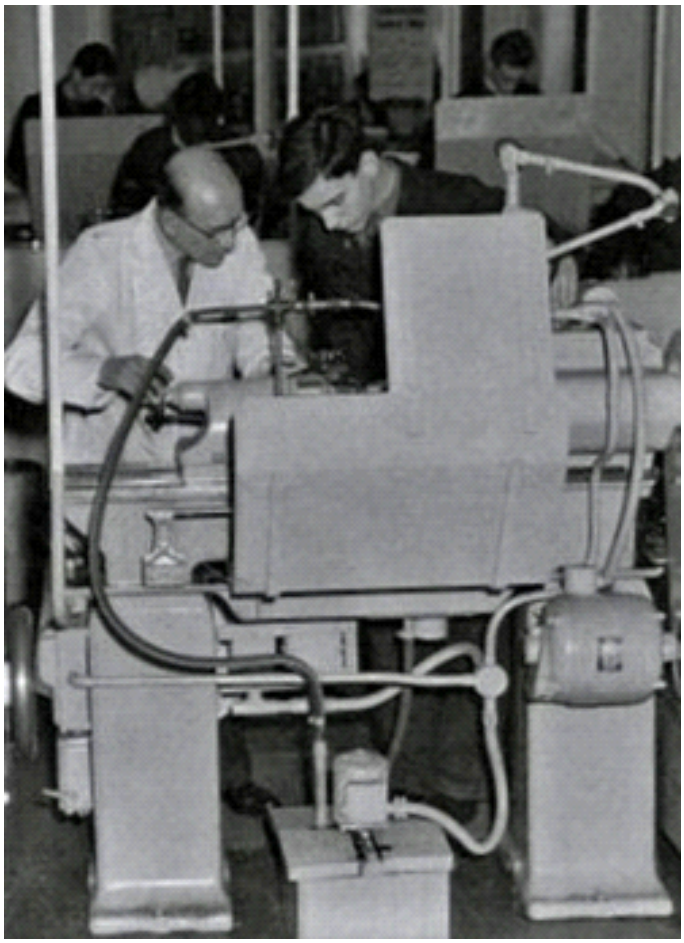




Farnborough Air Sciences Trust (FAST) Founder Member

In 1960, there were a large number of aircraft manufacturers in the UK, all of which were offering apprenticeships, and I applied to the Royal Aircraft Establishment (RAE) for an apprenticeship as a Tool and Model Maker. I was passionate about aviation and having attended many of the annual Farnborough Air Shows as a child, I was fascinated by the variety of aviation at Farnborough. The application process was demanding, but ultimately I was accepted and began my apprenticeship on September 15, 1960.

When my apprenticeship was complete, I was employed as a Craftsman Tool and Model Maker in the main toolroom in Q65 Building. Having improved my academic qualifications to include the ONC in Mechanical Engineering, in 1965 I was promoted to the post of Ordinary Design Draughtsman and allocated to the Chemistry, Physic and Metallurgy Department where I worked on many projects, including rain erosion, tribology and the world's first pilot rig for the production of carbon fibre. After two years, I was transferred to Weapons Department where I worked on the installation of experimental equipment on trials aircraft, a missile simulator rig and other security classified projects. During this time, I continued to attend the RAE Technical College where I gained the Higher National Certificate in Mechanical Engineering, together with the necessary endorsements that allowed me to eventually secure membership of the Institution of Mechanical Engineers, (which I did in 1972, becoming a Fellow in 1995).



Mike Baker receiving guidance from 1st year RAE apprentice Instructor Mr Walker in 1960 at the start of his 5-year Tool/Model Making engineering apprenticeship.



The Boys – a publicity shot taken in the Apprentice Hostel in about 1962. Apart from Mike Baker (left-handed guitar on RHS), it features (left to right) Chris Sirman on bass guitar, Mike Verity on rhythm guitar, Dave McMullen (Mack) on vocals and Baz Newman on drums!

In 1969, and recognising the lengthy promotion path and limited prospects for becoming an engineer in the Civil Service in the short term, I decided to leave the RAE and continue my career in the commercial world.



Tankard presented to Mike Baker upon leaving RAE and Weapons Dept Drawing Office, Q64 Building in 1969.

Tankard signed by Jack Clothier D/O Manager (the boss); Les Maybury & Arthur Alcock, Senior Draughtsmen; and his colleagues Gill Hollingworth and Anne Kent (Tracers); Harry Knowles; Gil Barrett; Dick Hughes; Harry Harrison; Ken Pett; my supervisor George Evemy; and Millie who took care of admin and made the tea!

My first job as an engineer was at Recording Designs Limited (RDL) in Blackwater, Surrey whose core competence was the design and manufacture of incremental magnetic tape recorders, where the tape advances across the recording head step by step instead of continuously. They are used to record an irregular flow of data economically and reliably and are much faster than the punched paper tape devices in use at the time.

I was in a small engineering team, and it was a baptism by fire, leaving a cosseted organisation of several thousand people with expertise and knowledge in every conceivable subject to a team of less than a dozen. After the first week, I had settled in well and was amazed to find that they were in many ways so much more advanced and forward-looking than the RAE. After several weeks I was assigned to assist in the development of an incremental tape recorder that was using standard audio cassettes instead of reel-to-reel magnetic tape. The product gradually evolved through a thorough development cycle into the world's first audio cassette-based incremental data recorder.

After I had been there for two years, RDL had to rapidly downsize, having lost an MOD contract very suddenly, and I was one of 80 employees to be made redundant.

After a delay of several weeks, I found a job at Electro Mechanisms in Slough that was involved in the design and manufacture of a range of pressure, displacement and acceleration sensors, joining a team of five electronic engineers. Here I worked on the development of servo accelerometers and strain gauge-based pressure transducers. The P700 range of pressure transducers grew to be one of the most accurate and robust sensors of its time and many thousands were subsequently manufactured.

After about two years, I was offered an opportunity to join a start-up company, Kulite Semiconductors Limited, but the first year of this job was to be spent in the parent United States assimilating their technology. Accordingly, in 1973 I moved to Kulite Semiconductor Products Inc in New Jersey, USA. Kulite invented the silicon pressure transducer along with silicon

accelerometers and semi-conductor strain gauges and although commonplace now, they were revolutionary in the 1970s. It was my main task to assimilate their technology and bring it back to the UK operation, where I would have the grand title of Chief Engineer, even though there were only four of us at the time!

Work was exciting; I was assigned to many projects and my wide-ranging training, which I was fortunate to have courtesy of the RAE, was proving very useful. Having come from an environment where a programmable calculator was as much as you could expect, we had access to a proper computer! A time-shared mainframe computer housed down the street provided access to a large computer through a remote terminal. In time, we acquired our own Digital PDP-8 mini-computer; I had no experience in computer programming, so I had to learn that 'on the job'!

My training US visa required that I return to the UK after 12 months and I spent the final period familiarising myself with the theory and practice of semi-conductor strain gauges, together with learning the main product range of miniature pressure and acceleration sensors before returning to the UK.

Back in the UK, my job was to act as the technical resource between sales and the customer while actively promoting Kulite's semiconductor strain gauge technology and life became hectic, handling technical sales, visits to customers, and being hands-on in manufacturing. My employment in this embryo company proved to be extremely useful to my future career, being exposed to virtually all of a company's activities first-hand, including finance, sales and marketing, engineering, and production.

Work life was generally good, but I became disillusioned with being tied to the American parent company and grew convinced that my long-term future at Kulite was uncertain. In 1976, without much deliberation and with no formal business plan, I decided to start my own company, Maywood Instruments Limited, specializing in custom-designed transducers for measuring pressure and force. A key focus of the company's product range was transducers featuring semiconductor strain gauges in their design. Over its years of operation, the company expanded from a workforce of two to around 50 people and a turnover of several million pounds exporting worldwide. Of the many technical innovations, the company originated the Loadwatcher and Tiploader series of on-board weighing systems for the bulk haulage industry, marketed under the trade name Maywood OnBoard. Another highlight was the design and manufacture of the world's first force instrumented truck crash barrier for Volvo in Sweden. In 1997 Maywood Instruments was sold to the Halma Group plc and combined with Thames Side Scientific Limited, another group company.

Following the sale of Maywood Instruments, I was retained as the Technical Director for the combined company of Thames Side – Maywood Limited until my contract terminated in December 2000.

In 2001, I formed an embryo 'Centre-of-Excellence' load cell development unit on behalf of Measurement Specialties Inc., a US-based company with operations in the US, UK and The People's Republic of China, whose key products were mass-market weighing applications that included electronic bathroom and medical scales. This is a challenging area requiring low manufacturing costs but with the utmost product reliability. Further development was curtailed by financial difficulties encountered in the parent company in the United States, resulting in the closure of the UK facility and in 2002, I became the General Manager of Measurement Specialties (UK) Ltd planning the company's re-organisation and re-location following the transfer of the majority of manufacturing to China.

In 2002, I founded Sherborne Sensors Limited, Basingstoke, as the Managing and Technical Director and formed an investor group to purchase the inertial products division assets from the

receiver of the Schaevitz Sensors Division of Measurement Specialties (UK) Limited. The company's specialisation was in the design and manufacture of a wide range of inclinometers, accelerometers and force transducers for military, aerospace and commercial markets sold throughout the world.

In 2005, the original Maywood Instruments force transducer business was put up for sale by First Technology Safety Systems, which had purchased it primarily for the crash wall products that Maywood had innovated back in 1996. The other parts of the Maywood business were considered to be non-core, and the product range was added to the existing portfolio of Sherborne Sensors in 2005. Sherborne Sensors was sold to the American investor group Nova Ventures in 2012 and following the re-structuring of the company, I became General Manager until I retired in 2015.

After a lifetime of feverish work, I found settling down to retirement extremely difficult. I was fortunate to secure some ad hoc consultancy contracts that gave me new impetus. These included performing the role of an expert witness in a patent dispute, a process weighing design contract and a technology transfer consultation culminating with a week in Shanghai, China.

After a lifetime of hard work, I often wonder if I'll ever truly be able to relax, though I remain hopeful. I take pride in knowing that my efforts have provided a livelihood for a few hundred people over the years and have helped give rise to several new companies. Both Applied Measurements Limited and LCM Systems Limited were founded by former Maywood employees. I am still a creative, practical, and solution-oriented entrepreneurial engineer who thrives on taking on new challenges, whether that involves launching a new business, developing innovative products, or helping customers solve technical engineering issues. Any successes I have achieved are a direct result of the exceptional training I received at the Royal Aircraft Establishment. Unfortunately, such thorough training has not been available for many years in the UK; today's apprenticeships are a mere shadow of the comprehensive program I was privileged to experience.

Farnborough Air Sciences Trust (FAST)

In 1994, through my good friend and former RAE apprentice colleague Maurice Shakespeare, I was introduced to the Farnborough Air Sciences Trust (FAST). In 1995, the supporting organisation, the FAST Association (FASTA), was founded, and I attended the first meeting of supporters, which took place in a building near South Gate on RAE Road. A committee was formed, and membership was invited, so I joined the FASTA alongside many others. Driven by a strong interest in preserving the history of the Royal Aircraft Establishment (RAE) and a desire to give back something to the RAE, I volunteered to lead the FAST 'Artefacts and Records Group' before the museum moved into G1 Building from the former Wind Tunnel building R52, located opposite the 24ft Wind Tunnel. Evenings and weekends were dedicated to volunteers gathering and storing a wide range of items, including artefacts from the now-closed main factory site. Regular Saturday morning meetings were held, where I tried with mixed success to instil organisation to our enthusiastic and well-meaning group of volunteers. Soon, R52 was overflowing with items from closed RAE buildings, and priceless artefacts were rescued from destruction as the site was shut down. Eventually, I became one of the Trustees of FAST, but due to health and business challenges, I eventually had to resign.

In 2002, the FAST Museum was established in G1 Building, the original headquarters of the Royal Flying Corps.

I am proud to have played a small part in both FASTA and FAST, which have grown from strength to strength, now boasting an accredited museum.

Mike Baker
25 January 2025

Ron BALCOMBE

Brick No. 223 in Square 39



I was an RAE. apprentice from 1953-1958 but sponsored by BOAC. After National Service in the RAF, I joined BOAC/BA and remained with them until I retired. However, I have very happy memories of my time with the RAE and I am still in contact with colleagues from there.

Betty BARKER

Brick No. 391 in Square 21



RAE 1947-1954

Betty joined RAE in 1947 as a Learner Tracer. She then qualified as a Tracer, and later a DOA in Naval Aircraft Department, where she worked in the team that designed and developed the aircraft carriers' Flexible Deck and the Angled Deck. She participated in the trials of the Flexible Deck on the airfield - with Winkle Brown landing in his Vampire - and she revelled in the exhilaration of being part of such technically demanding and exciting developments in company of such able colleagues.

She married Peter Barker, an RAE Draughtsman, in 1953 and only left RAE in 1954 - with

great sadness and forever regretting it - when Peter's job move took them to a new home, too far r away for daily travel to RAE. Not least, she so missed the continual sound of aircraft. After bringing up a family, Betty went back to the drawing board for a while, as a DOA with Thames Water, using the skills that she had so enjoyably acquired at RAE.
Her maiden name was Spong and she was one of several members of her family who worked at RAE over the years. They lived in RAE's Pinehurst Cottages and for a generation were a part of RAE.

Betty would have loved to have written - and would have made a better job of her own version of this but, sadly, Betty died in December 2012.

Kevin J BARKER

Brick No. 583 in Square 4



I joined RAE on 18th October 1976 as an ASO in Radio & Navigation Dept in P161 Building working on Sono buoy R&D. It was here that I was exposed to the realities of work including electronics, software programming, sea & flight trials. I started out on my Flight Test Observer journey with a 1.5 hour trial in a Wessex helicopter, culminating in a total of 650 hours in a variety of aircraft types.

Day release at Farnborough Tech and "time served" led to a move into Integrated Navigation Systems in Rad/Nav in R16 Building and subsequent promotion to SO. Here I was involved in evaluating the first UK built Navstar GPS receivers and embryonic work on GPS anti-jam systems and INS/GPS Integration. This involved many overseas flight trials including several over the North Pole as a GPS Instructor on the annual RAF 'Aries' flights.

A move on promotion to HSO led to ten years on highly classified Operational Emergency projects where the whole 'cradle to grave' equipment lifecycle was experienced. Towards the end of this period, promotion to SSO coincided with a move away from the RAE Industrial site to the high-tech Cody Technology Park.

A two-year 'Hobson's Choice' sojourn into Project Management of various Helicopter Technology Demonstrator Programmes was followed by eight years in the unique UAV Systems group. This included promotion to PSO (subsequently reclassified as Principal Systems Engineer) and an exciting period working with emerging technologies and systems that were clearly opening a new chapter in the history of aviation.

The 17th April 2007 saw a departure from Farnborough & QinetiQ to pursue a freelance Engineering career in an attempt to re-kindle the exciting early days of my time at RAE; which

has mostly been achieved.

No matter where I go or what I do, my time at the Royal Aircraft Establishment will always have a special place in my heart.

Peter BARKER

Brick No. 390 in Square 21



RAE 1944-1954

I was an Engineering Apprentice from 1944 to 1949; it was the most marvellous education and I have always been so grateful for it. Amongst other things it instilled an admiration for, and empathy with, the craftsmen upon whose skills not a little of RAE's reputation was built.

I then became a Draughtsman in Armaments Dept, ARL, engaged in (the then) Top Secret design and development work on the delivery system for the UK's first service nuclear weapon - the free-fall bomb 'Blue Danube' - for the V bombers which were about to enter service.

During my time at RAE, the seemingly endless development of so many new aircraft types, and of so many newly emerging technologies, created an atmosphere that was unbelievably stimulating.

RAE stimulus was not only technical. As an Apprentice in 1947, at the Convent where we were both students, I had met Betty Spong, then a Learner Tracer. We married in 1953.

I only left RAE for promotion to Engineer III at Aldermaston because at that time there were no such vacancies at RAE. I was so sad to leave. My 10 year experience at RAE was the happiest, the most technically rewarding, and the most exciting in my whole lifetime.

I am now 86 and have worked in a number of organisations but, wherever I have worked since leaving RAE, I have never found such an incredible combination of expertise (and sense of

humour) in such a happy working environment. RAE had an expert in almost every aviationrelated speciality you could possibly mention, together with manufacturing skills and facilities that were unmatched by any other organisation. For me, work there was wonderfully demanding - and such unbelievable fun.

Florence (Flo) BARLOW

Brick No. 727 in Square 34



This is a small story, the reminiscences of a young girl, Florence ‘Flo’ Barlow who once worked at the Royal aircraft factory - ‘The Factory’.

As the school year of 1916 came to an end, so also, as I was now fourteen, did my years at school. As the time approached I had decided to try for a job at the Royal Aircraft Factory - more locally known as ‘The Factory’. At the same time I had persuaded two friends, who were also leaving school, to go with me.

On the day after finishing school we met up and walked over to The Factory, we all lived in the Ash Vale area, myself, I lived in Would Street. We arrived at the big iron gates (North Gate) and were confronted by a policeman who asked, “What do you kids want”? We answered “We’ve come for a job.”

He then opened a side gate and motioned us to come in and then through to a building next door to the police hut. Here we were met by a man and lady who sent us each through to an adjoining room to see the Doctor, assisted by a nurse. Our hair was checked for ‘nits’ and our heart was sounded. We were all classed being fit.

Returning to the first room we were then given a sewing test. The sewing test required us to patch a peace of linen, by hand and without a thimble. As we had won a prize at school for writing, this test was not difficult. Two of us had received a grade 7 for writing and the other had been given a grade X7, for this reason she was offered an office job.

The two of us left were then taken down to the fabric shop, known locally as ‘Cody’s’ and run by Mr. Vivian Cody, son of F. W. Cody. Here we were each taken on by one of the sewing machinist. The sewing machines were heavy duty Singer machines, belt driven from a low level, common shaft.

I settled in quite well to the routine, but my friend who was with me, left after about two weeks. She was quite a religious girl and did not like all the swearing that went on.

Our working hours were from 8.00a.m. to 5.00p.m. with an hour for lunch. A small room was set aside for anyone to eat their lunch. Some snacks were available to buy. As a girl my wages were 16/- shillings-(80p) a week.

The department was responsible for the manufacture of all the fabric components needed in the building of prototype and production aircraft as well as the roofing and walls for aircraft hangars.

The layout of the department started with the cutting room, where the material for the covering the aircraft wings was cut to shape from the appropriate pattern. Before it passed to a machinist it was scanned on a light box for any defects in the weave. Defective pieces were rejected. When a machinist received the parts it was her job, with an assistant, like me, to stitch the appropriate pieces together. This usually meant I spent a lot of time on the floor keeping the pieces arranged so that work was easier for machining.

After machining the fabric was again inspected to ensure no gaps had been left in the stitching. Any such gaps required to be made good. From machining the fabric, which now formed a pocket, was passed to the girls who would then feed it onto the aircraft wing (not part of the complete aircraft) and then stitch it in place by sewing through the spaces in the wing structure.

The final operation was doping the surface of the fabric to seal and tension it in place. This was carried out by girls, who in the early days did not wear masks. They were brought in after two girls became seriously ill.

Stitching the canvas for the aircraft hangars was not easy work; each panel, either wall and roof, was made up of three pieces, which had to be folded such that it would be able to pass through the sewing machine. At this stage it needed the help of three men to lift and turn the panels.

There were two materials in use, depending upon where the hangars were to be used. One was a heavy ‘creosote’ canvas for hangars, required in France and northern areas. The other was a lightweight canvas for use in the desert areas.

At one period, to increase the output from the department we were put onto piece-work. The lady I was working for was a good machinist and together we increased our output so that my weekly wage went up to 28/- shillings-(£1.40) per week.

My job first thing in the morning was to set up the sewing machine area preparing for the The day’s work. I used to get in about 7.30a.m. after having about the three-quarter of an hour’s walk from home. On her way to work the lady I worked for used to call in at the fish and chip shop and in the bakers. At the chip shop she would acquire a bag of the fish and batter pieces which the owner was scooping out the fryer, as he prepared for the day’s cooking. From the bakers she would acquire a bag of stale bread, this gave us both a ‘breakfast’ before we started work.

Something similar would take place at lunchtime when the ‘trainees’ gathered in the ‘canteen’. Here we would hope to be able to acquire any stale cakes left over from the day before. Buying anything was too expensive.

Of the events that occurred during my years in the factory, three particular stand out in my memory. The dates, though, I cannot remember.

The first occurrence was when two men in raincoats came into work rooms with Mr. Cody, locking the doors after them. The tea lady had also just appeared with tea for our break. An announcement was made that, “We are looking for a spy, so everybody stand still.” The two men in raincoats came and looked at everybody. When they had finished checking everyone,

nothing more was said and they left. By now the tea was cold so the tea lady left to make some more.

A second event that I recall is when we had a visit by some Russian military men. As they were being shown around, one stopped by our sewing machine, pointed to it and said, “German machines.” We always believed them to be English so for a time we argued. He was, of course, right.

The third event, unfortunately, ended in tragedy. For some time we had been working on the wings of a large new aeroplane. So large that part of the department wall had to removed to fit the wings inside. When the wings, and finally the aeroplane, was completed, we were allowed out to see it take off on its first flight. Seven people were said to be on board. It taxied down the runway (grass) then, as it turned to take off, it tipped up onto its nose and pieces broke off. We heard later that two people (the pilot and co-pilot) were killed.

Everyone on the ground watching was stunned and very upset. Work for that day ceased and we were all sent home. The aeroplane was called the ‘Tarrant Tabor’.

It was the 1919 and I had been at the Factory for nearly 3 years and the war had ended. Then one day, when I went to work, I was told there was no more work for me, therefore I would not be wanted anymore. So at seventeen I was out of work. What came next? Well that is another story.

Les BARTER

Brick No. 1031 in Square 52



RAE 1949 to 1978

Thomas Leslie Barter, known to all as Les, arrived in Farnborough in 1946. Les spent the war in a reserved occupation at a munitions factory at Hayes, Middlesex. When production wound down, the powers that be were unsure where to send Les so he was posted to the RAE for three weeks; he stayed for 35 years. He was living at the Grange hostel. The Grange was a country

house requisitioned during the war. In the grounds living accommodation was built to accommodate all the engineers and scientists who had been recruited from all over the UK. These were early portacabins and fairly basic. Les was never the best time keeper so a friend used to bang on the heating pipe to wake him, unfortunately he was next door bar one - the chap in the middle started work later, being staff!! The main transport to the “factory” was by bike, such was the number of people riding to and from the Grange that any bike would do; Les only used his own bike about once a month.

With so many people, the social life was hectic and to ensure he didn’t miss out on the fun he decided to get to know the receptionists at the Grange. He managed to know one (Heather Clarke) very well and they married in 1949.

After marrying, Heather and Les left the Grange and moved into “rooms” at the Ridges near Farnborough main station. Les decided to build a bungalow and after a search he found a plot of land in Rectory Road, Farnborough - he paid £100 for the land and always maintained he was robbed! The bungalow was duly built and twelve years later he extended it into the chalet style house we see today.

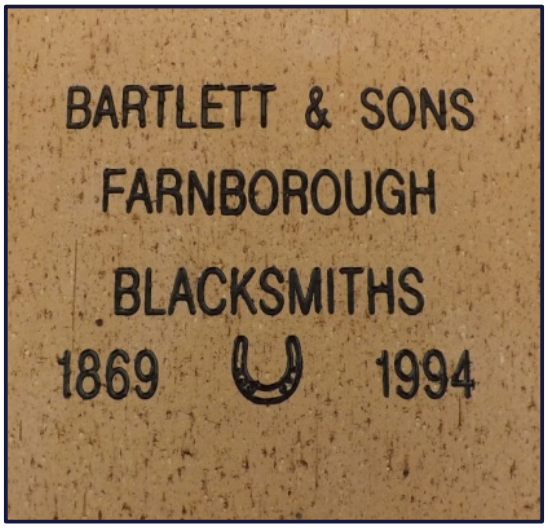
Just for good measure he built most of the furniture in the house as well as three magnificent clocks from scratch. By this time he had a family - John, Jan and Pauline. With a growing family a car was needed, so in typical style he decided to build one. This became known as the ‘yellow peril’. Again built from scratch, it had a tubular chassis and aluminium body, was very light and went like hell. When it came to applying for insurance for the car, the insurance company insisted on an engineer’s report to confirm it was road worthy. This was no problem for Les as his friend, Peter Jowett, was at that time the chief engineer to the Formula One Constructor’s Association. The insurance man departed highly impressed, saying he would copy the report and hang it on the office wall.

By this time Les had moved to the Apprentice Training Department (the Trog Shop). He loved passing on his skills and knowledge to hundreds of apprentices full of ideas, energy and humour. This also led to a stream of ‘his boys’ as he called them at the our family house with all sorts of cars, specials, racing motorcycle combinations and the like, ranging from the well made to outright dangerous, all requiring a job doing. Whilst all this was going on he built another car same colour, registration and chassis number! But rather more sedate.

In later life Les and Heather had the opportunity to travel extensively and enjoy their grandchildren, with Les working in his workshop on the next project.

BARTLETT Family

Brick No. 635 in Square 27



Family History 1869 – 1994

In 1860 William Bartlett came from The Blue Coat School, Reading, to be apprentice to George Hurdle in Yorktown, Camberley, for the sum of £20. The building is now known as "The Four Horse Shoes Public House". He later married George Hurdle's daughter Eliza Anne.

They moved to Rectory Road, Farnborough, to the old Schoolhouse and set up the Blacksmith's shop in 1869.

They had 13 children, one of which was Gus Bartlett who became blacksmith farrier. One of his jobs was shoeing the horses for Simmons Brewery in Farnborough Street.

Also he was known to help, with others, to push Col. Cody's plane.

Gus retired in 1941. In 1945 his nephew William Bartlett continued to work as General Smith and welding.

During this time his son John joined him and at one stage John worked on the centrifuge at The Empire Test Pilot School.

William retired in 1968. His son John retired in 1994.

Reginald Guy BARTLETT

Brick No. 1169 in Square 59





Reginald Guy Bartlett ("Reg") was born on the 2nd June 1913. After finishing his education, he completed an apprenticeship with Fairey Engineering, training as an aeronautical draughtsman. This led to him successfully gaining experience and a steady rise through the company, eventually being appointed head of his section as Chief Draughtsman. When Westland Helicopters took over the business he continued in that role. Over the years he was involved in various projects, including the development of SRN hovercraft, the Fairey Rotodyne, and helicopters such as the Wasp and Scout.

Farnborough Air Show was a regular commitment representing Westland on the trade stand and meeting fellow professionals from other businesses. He was by nature a quiet man, but undoubtedly excelled at his work and was well-liked and respected by colleagues and associates. He was part of a team contributing to the development of ground breaking designs for over 30 years. Sadly his career was cut short by a cancer diagnosis followed by rapid decline and his death on the 24th July 1968.

By his daughter, Susan Bartlett
12 December 2024

Edward Arthur (Ted) BASSETT

Brick No. 265 in Square 14



1920 - 2012 (RAE 1964 - 1971)

Ted was born on April 4th 1920 in Plumstead, South East London where his grandfather, Arthur, had a bicycle shop and made machines from scratch. Ted won a scholarship to Shooters Hill Grammar School and followed on to University College where he did a B.Sc in Chemistry.

Ted joined the RAF during the war and trained as a pilot. His one and only solo flight in a Tiger Moth ended with a terrifying landing. He was transferred to navigator training where 'killing someone by accident' was less likely. By then the war was drawing to a close and he never became a navigator.

Ted took a diploma in Chemical Engineering at Bradford. He recounted staying with Mrs Golightly who found ex-service personnel lodgers preferable to the evacuee children. She was mean and didn't heat the house. Ted sometimes found his glass of water frozen to the bedside table in the morning.

Ted applied to the Civil Service and moved to Chorley in Lancashire. Here at 'The Royal Ordnance Factory' Euxton he met Joyce, a Personnel Officer. They were married in Blackburn in 1953 and moved South to work at The Atomic Weapons Establishment at Aldermaston where Joyce became the first female Senior Personnel Officer.

Ted took charge of a decrepit manufacturing plant for deuterium oxide (heavy water). This was used in the control of nuclear reactors. This led to some tricky moments and Ted had to field the flack when part of a consignment went missing during a routine transfer. The missing quantity was never traced; and most likely never existed except in the mind of an inaccurate record keeper.

In the late 1950s Ted and Joyce took jobs at the MOD in London. They moved to Woking where in 1961 their daughter Anne was born. They had a house built for them but work was severely hampered by the famous big freeze of 1962/3.

Ted transferred to The Royal Aircraft Establishment at Farnborough in 1964 where he worked as Senior Scientific Officer in Weapons Department. Ted was gentle and unassuming and it is hard to imagine him being involved in selling armaments to foreign powers. He moved on to work in St Giles Court, London, in 1971 and retired in 1981.

In 1989 Ted's Daughter Anne followed in his footsteps and took up a post in the library at RAE Farnborough. Here she met engineer David Madgwick (see other Brick Book entry). They married and their son Jamie was born in 1997.

Daryl BATES (Mrs)

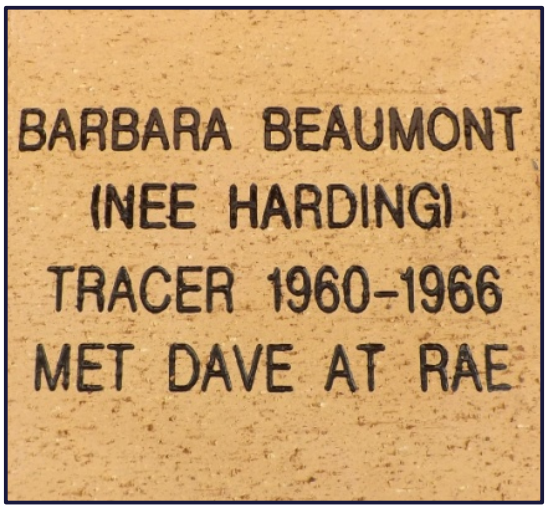
Brick No. 350 in Square 5



I have commissioned a brick although I have nothing to do with the RAE. For many years (over 40) I taught at Cove Comprehensive School. At first I was Head of History and then I became Head of Cody House. I became fascinated by Cody and determined that my students would know a great deal about him, as well as being very proud of his links to Farnborough. The other Houses had links to Hampshire but not to Farnborough. We celebrated his life every year in October on the anniversary of his first flight, with a Cody Day. We tried making kites, paper airplanes and balloon races. During my time I was delighted to have Amy and Felicity Cody as members of the House. Amy came to the School Prom in Cody's old car driven by her father with her mother travelling behind in case it broke down.

Barbara BEAUMONT (nee HARDING)

Brick No. 890 in Square 1



On leaving grammar school I started work at the RAE as a tracer, spending the first year in training and the following five years in various departments including Radio and Space Departments. It was during this time that I first met Dave Beaumont, who was an apprentice, and we married in September 1966. After our marriage Dave and I lived on the Cranfield campus where Dave was studying, so I then transferred to RAE Bedford. When our son Paul arrived I became a full time mum and with Gilly arriving a few years later remained a full time mum until 1983. At this time I wanted to get back to work and returned to the RAE working in the Drawing Office of the Institute of Aviation Medicine. This continued until its sad demise in 1995 when I secured a part time job within the Army, working in Aldershot and Arborfield up to 2000. At that time Dave and I decided that our Millennium present to ourselves would be early retirement, a decision we have never regretted! During the last fourteen years Dave and I have been fortunate enough to travel within the UK and overseas as well as spend special times with our children, grandsons, family and friends. In addition we enjoy cycling and playing bowls during the winter months. Without the RAE none of this would have been. Thank you RAE.

Graham and Dave BEAUMONT

Brick No. 874 in Square 1



Graham and Dave are the sons of Reginald ('Beau') Beaumont who worked for Reginald Mitchell and Jo Smith as part of the Design Team for the Supermarine Spitfire of WW2 fame. It was therefore not too surprising that they both took up careers in Engineering.

What happened to Graham Beaumont after Farnborough

After an enjoyable and excellent training at RAE, second to none, I went to the College of Aeronautics, Cranfield for a 2 year Diploma Course in Electrical Engineering, and graduated from Cranfield in 1960. I met my wife Margaret in Bedford during this time, and we were married in 1961. Fifty something years later, we have 3 children and 6 grand children.

At Luton, I was working on guided missile control simulation at English Electric, Luton. As the then Labour Government cancelled the projects that I was working on, I moved to General Precision Systems at Aylesbury, to work on the design of the TSR2 simulator. After 3 years, the Prime Minister, Harold Wilson, (remember the pipe) cancelled the TSR2, and whilst I was not made redundant, it wasn't clear if I would still have a job in the near future. At this time, many Canadian companies were advertising for engineers, so my wife and I agreed we would give Canada a try. Over the years, I worked for several companies, including Computing Devices of Canada, various avionic systems, Canadian Marconi Ltd, ship board surveillance radars, and Raytheon Canada, air traffic control radars and systems, as well as a while as a self employed Consulting Engineer. During that time, I was on contract to the National Research Council of Canada, and worked on the design of the computer control system, for a large astronomical telescope, called the Canada-France-Hawaii Telescope, now situated on the top of the big island of Hawaii. This will undoubtedly be the only part of my career that will outlive me!!

In 1990 we decided to emigrate again, and left Canada for New Zealand, to avoid the Canadian winter, as we got a bit older shovelling snow is a chore.

I continued to work for Raytheon US, from NZ, marketing ATC systems in Asia, until I retired in 2001.

In summary I have had a very interesting working life, and I have no doubt that I owe a lot to the excellent training that I received at RAE. In fact in retirement, I still use many skills I learnt at RAE, I restore older British cars and have a workshop with a lathe, welding gear and many other tools, that I learnt to use at RAE. Thank You.

Dave Beaumont and the RAE

Having an older brother whose main hobby was building wireless sets and amplifiers shaped my interest in those things. I clearly remember helping him with a mains operated super heterodyne receiver and getting my first electric shock when Graham passed the earphones to me! I've always wondered if he was trying to get rid of his younger brother!!

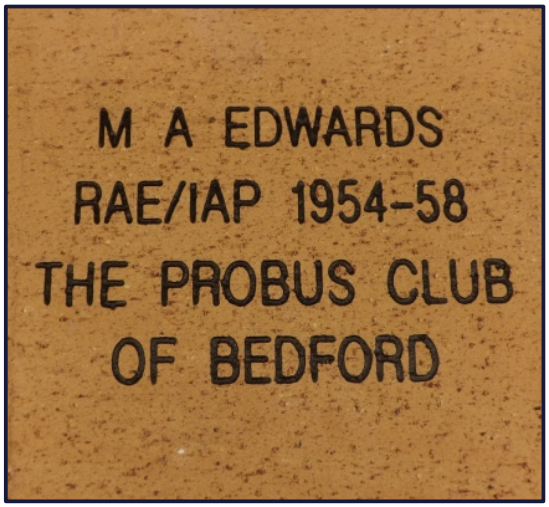
I started at the RAE as a student apprentice in 1960 and feel privileged to have received an engineering training that was second to none. On leaving RAE, I spent two years at Cranfield Institute of Technology studying for my Master's Degree in Electronic System Design. At this time I married Barbara who was a Tracer at RAE and who, following our marriage, transferred to RAE Bedford, a short drive from the Cranfield campus.

My first job on leaving Cranfield was at Redifon in Crawley as part of the design team for the Phantom F4K and F4M flight simulator project. After a short stay with Sperry Gyroscope in Bracknell I moved to GEC Marconi at Frimley where I stayed for 34 years. During that time I worked on a variety of major projects for the MoD including a joint venture programme with RSRE Malvern to investigate and develop the emerging technology for thermal imaging systems. This was a very exciting time and laid the foundation for things to come. The latter part of my career was spent on K Band tracking radars for both the Army and Royal Navy followed by a few years as a Consultant.

In parallel with the professional career Barbara and I had two children, Paul (who spent three years at RAE until the lights went out!) and Gilly, plus two grandsons. In addition to the career and happy family life, I also pursued my interest in old cars and have restored four MGBs, using all those practical skills acquired at Farnborough. Thank you RAE.

BEDFORD PROBUS CLUB

Brick No. 802 in Square 2



Bedford Probus Club salutes our early aviation pioneers.

C J P (SAM) BEESLEY

Brick No. 207 in Square 39



I came to ETPS A/C Department RAE in 1960, after service with RAF, RNZAF, as a Fitter 2E Engines and in commercial aviation as a A/C Engineer. The RAE nomenclature was Craftsman R/D Special Engines. Grand title, less money. After ETPS moved to Boscombe, I joined the Comet 2E Servicing team (ie flying spanner) travelling the world on many trials.

A BAC1-11 replaced the Comet, again completing many overseas trials. As I was nearing retirement, I was moved to the high speed flight. The Jaguars, Hunters, Hawks because of their size could have the bulk of their servicing accomplished in the hangar, a bonus in inclement weather.

It was a pleasure and a privilege for 29 years being part of such a prestigious organisation, the like of which will never be seen again. The statue and the bricks will be a fitting memorial.

Nick BENGER

Brick No. 1064 in Square 53



Nick joined the Royal Aircraft Establishment on 31st October 1966, after leaving Farnborough Grammar School. His first 2 years were spent in the Free Flight Section of the Aerodynamics Department where he worked on 'Free Flight' trajectories of scaled models of various aircraft released from a booster rocket over Cardigan Bay. This involved programming in ICL Fortran and using ICL 1907 and 1906S main frame computers running under George III and George IV Operating Systems.

In 1968 he transferred to the wind-tunnel site at Ball hill to assist with the building of a Flight Dynamic Simulator Rig for on-line analysis of wind-tunnel results. It was on this project that he first used a mini computer, a DEC PDP 11/20, which was programmed in PDP Assembler Language. This work lasted for 4 years until 1972.

Nick then transferred back to the Aero Dept. where he started work on non-linear aerodynamics, moving in 1975 to the newly created Flight Systems Dept. where he continued this work on the Harrier aircraft. This involved the extraction of aerodynamic derivatives from flight data.

In 1976 Nick started work on a contract with Westland Helicopters to simulate a remotely-piloted vehicle. This involved development work on the ICL main frame computers.

In 1979 he moved to the Simulator Section of the Flight Systems Dept. to oversee a software contract which had just begun to develop a suite of programs for use on the Air-Combat Simulator. This involved learning a new programming language, CORAL 66.

For a short while Nick was involved with the development of a Lynx Helicopter Simulation, converting code from RED 2000 assembler to CORAL. When this work was temporarily halted, he started writing software to test drive a Visual Flight Attachment, needed to simulate outside world TV pictures derived from a 1:2000 scaled model board. This was a vital piece of equipment for the Ground Attack Simulator. He later took an active part in the design, and running of trials which took place on the Ground Attack Simulator from 1988-1990.

In 1989, Nick had the opportunity to be an observer at the Red Flag exercise at Nellis US Airforce Base, Nevada, USA.

Nick was responsible for the specification of Fibre Optic computer Local Area Network (LAN) and remote Keyboard/Video/Mouse (KVM) required for JOUST/HOVERS/STAR Simulators in Farnborough. This involved inviting companies to tender and then run the contract with PINACL to develop and oversee installation and test of a custom-built fibre optic converter for remote KVM.

In 1996, Nick oversaw the move of SGI computers from the Factory Site to the Cody Technology Park in Farnborough; involving connection to the newly installed fibre optic network and organising the System Security Procedures (SSP) and Security Operating Procedures (SyOP) for High Level LAN. He worked with IDA (Malvern) to obtain accreditation for the fibre optic computer LAN and remote KVM.

Nick managed the computer system supporting JOUST / HOVERS / STAR / MARS simulators, which involved buying computer hardware & software to upgrade the computer facility, managing SGI computers and overseeing their maintenance, replacing ageing SGI machines with state-of-the-art PC's, handling data backups and archiving.

Since 2005, Nick has led the purchasing of IT for Project Managers for the Training and Simulation group within the Cyber Information and Training (CIT) business of QinetiQ.

On the 31st October 2016, Nick celebrated 50 years in the Aerospace industry with the Royal Aircraft Establishment and its successor organisations, right up to QinetiQ today. Nick retired on the 25th November 2016.

Rodney BISHOP

Brick No. 746 in Square 26



He was born in the parish of Hellingly, East Sussex, on 16th August, 1933 as Rodney David Bishop but grew up in nearby town of Hailsham. He went to that town's former Secondary Modern School. His first job was as a telegram boy at Hailsham Post Office and his job covered the surrounding area. He subsequently progressed to junior postman.

A few weeks after his 18th birthday he was called up to do his 2-year National Service in December, 1951 and chose to go into the RAF, probably due to parental influence. He became a Leading Aircraftsman and went to a trade training school in RAF Wahn, West Germany, as it

was then known, and as an Armament Mechanic (Guns). He spent most of his active service life there intil demob in the UK in December, 1953.

Looking at the group photograph, he is depicted 4th from the left and next to the corporal with the immaculate white belt!



During his 2-year stint of National Service, he represented the RAF as part of the King George VI funeral cortege in 1952, along with the other Services.



On returning to civilian life, he resumed his career in the postal side of the Post Office, not in Hailsham but in Eastbourne, Sussex as a fully-fledged postman. As a result, he became domiciled for the rest of his life there.

He passed away, aged 80, on the 19th October 2013 and was cremated in Eastbourne Crematorium on 6th November 2013. His sister Sheila agrees with me that he had a good life.

It was a privilege for me to remember my dear friend Rodney in this way. We

spent our youth together in Hailsham with two like minded friends. These two are depicted in this photograph behind the CAUTION road sign, which I found in my archives. It was taken, mischievously, in George Street, Hailsham at a road works with the old council offices in the background behind the trees. Looking at the photograph, from the left, his two friends were: Brian Putman and Dudley Rose, with Rodney on the extreme right. He is seen smiling, and I am sure that is how all his friends would like to remember him.

Story by his lifetime friend, Mike Holmden.

John BLAKE

Brick No. 269 in Square 22



The voices of the Farnborough International Airshow, 1976 to date

John Blake, already a well known Air show commentator, became the Chief Commentator for Farnborough in 1976. He was an acclaimed historian and a much respected artist. John became the 'Voice of Farnborough', a role he held until 1994. He was well known amongst the chalet rows, both for his raconteur skills, sense of humour and propensity to create cartoons on anything on which you could draw. During these years he was assisted by Stratton Richey. Neither John nor Stratton held any type of pilots licence until 1979 when they both obtained their PPLs. John had to jump through many hoops with the CAA medical branch. John, in his past life, as an officer with the Irish Guards, found himself holding a hand grenade when it went off. This caused considerable damage and the loss of his right hand. He was never deterred by this loss, and never considered himself disabled. Indeed he went on to become a Vice President of the Guild of Aviation Artists and over the years held many art exhibitions.

1994 found John doing his last Farnborough and handing over the microphone to his friend and colleague Stratton Richey. Stratton by this time had become an airline Captain with British Airways and an instructor and examiner on light aircraft. Stratton had also been involved in Air shows in his own right at various shows up and down the country. Stratton immediately recruited his friend Mark Brown who had been assisting him at Air shows for many years and was considered the natural additional team member to Farnborough International. This

combination of Stratton and Mark continues today and their friendship shows, in that, each has been Best Man at each other's weddings. Stratton has been commentating at every Farnborough since 1976 and Mark has commentated at the shows since 1996. The success of the Blake/ Richey, and the Richey/Brown, combinations has helped, in some way, to the success of Farnborough as the leading international trade show that it is today.

John Blake died in 2012, but during his time at Farnborough he was a great supporter of FAST and as an historian appreciated the historical events which have taken place at the site. Stratton Richey would not have enjoyed the success he has had without the guidance he received from John and, as he took over as Chief Commentator, his friendship with his commentary team colleague, Mark Brown.

The brick at the Cody site acknowledges the Air show Voices of John Blake, Mark Brown and Stratton Richey.

Von BLOOMFIELD

Brick No. 358 in Square 5



Von Bloomfield worked for many years as a design draftsman at the RAF Institute of Aviation Medicine, involved in many and varied projects.

He began his working life as an apprentice aeronautical engineer with Short Brothers in Rochester. During the second world war his skills were much in demand operating from a variety of RAF stations around the UK troubleshooting engineering issues on Sunderland flying boats. He was named Von by his colleagues at one such Station when an aerial attack by enemy aircraft strafed their barrack block whilst its occupants were in a shelter, leaving every single bunk except his hit by gunfire. They teased him that he must have friends on the other side!

Recently discovered documents suggest that later in the war he was flying as flight engineer with regular crews. On one such flight they were shot down, taken aboard a U Boat and interrogated before being put back into the sea to await allied rescue. As a result Von contracted polio which severely affected the rest of his life. Because he was a civilian his service and sacrifice was never recognised as it would have been had he been enlisted.

Despite limited mobility and near constant pain, he maintained a cheerful outlook on life. Those who knew him will fondly remember his dry wit and propensity to find quiet humour in some of life's little incidents. As an engineer he was highly respected by those with whom he worked and was often in demand to solve design problems.

Derek R and Diane BRACKNELL

Brick No. 418 in Square 21



As long as I can remember I have been proud to be associated with Farnborough and its aviation heritage. As a young boy living in South Farnborough in the 50's & 60's (the oldest part of town) all I can remember is being interested in how radios worked and finding out as much as I could about the latest aircraft developments. During this period I particularly remember the thrill of the annual air show including the occasional sonic boom from aircraft breaking the sound barrier when in those days this was still allowed!

Combining my love of aviation with my other passion electronics I was honoured to be accepted as a craft apprentice at the RAE in 1965. Following this in 1969 I became qualified as an electronics craftsman which was the start of a wonderful 40 year career at RAE and its successors. Eventually getting promoted to a senior scientific officer I worked on a wide range of both civil and military avionics systems research in the 80s and 90s. stayed with the RAE and its successors the Defence Research Agency (DRA), Defence Research & Evaluation Agency (DERA) and finally QinetiQ until my eventual retirement in 2005.

Nowadays as a regular volunteer at Farnborough Air Sciences Trust I have been able to relive many of the wonderful experiences I had working at the RAE meeting and working again with former colleagues and those I worked with from different Ministry of Defence (MOD) establishments around the country and MOD (HQ).

I have always been interested in Samuel Franklin Cody's achievement as the first man to conduct officially recognised powered flight in the UK and consider him the founding father of aviation research at Farnborough which has carried on for more than 100 years since his death. I definitely felt Cody's achievement's had gone unrecognised for too long until FAST undertook to commemorate his first flight with the building of the full sized replica of his aircraft and the marking of the centenary of his death with the unveiling of the Cody Statue at the FAST museum site on 7th August 2013.

I was therefore delighted to secure a commemorative brick to celebrate a lifetime careers association with the old research establishments and include my wife, Diane, who also worked at the RAE early in our married life until we started our family with Darren in 1976 and Debby in 1979.

Long may the museum remain for future generations to enjoy and help inform them of the importance and achievements of the aviation research conducted at Farnborough and of course the personal contribution made by Samuel Franklin Cody.

Alice BRIGHT

Brick No. 217 in Square 39



Yes, I could also write a book about my years at the RAE. but it would take too long. To cut a long story short, here goes. My 26 years were great, never a dull moment. I still reminisce about these times with my children and grandchildren and anyone else who is happy to listen. I made many good friends and I still keep in touch (by phone) as I do not live locally any more. Yes, they were very good years for me. Good luck with the Cody Statue Project (a great idea).

Michael BROAD

Brick No. 176 in Square 31





My time at RAE Farnborough
I was born in Portland, Dorset on the 9th November 1939. Portland being a naval base with a large harbour was a prime target for German bombers. Thus there was a lot of aerial activity and this sparked my interest in aircraft and aviation as I got older. I used to make and fly model aircraft and gliders.

When I left school at the age of 16 and started thinking about getting a job, the local youth employment officer, knowing my interests, suggested that I applied to work at RAE Farnborough. I went for an interview and was successful but had to wait 6 months before I could start because of cutbacks. So, on the 29th April 1957 I turned up at the Grange hostel with several others to be Scientific Assistants. This was the start of a career that lasted 35 years. We had a 6 week induction course at the then RAE technical college, after which we were dispersed to various departments within RAE. l went to Instrumentation Dept. which was housed in P70 Building.

I joined the Photographic Recording section. Photographic recording in this context was the process of transferring analogue data to a moving roll of photographic paper via miniature mirror galvanometers sitting in a magnet block within the recorder. There could be up to 12 galvanometers available so that a number of data sources could be recorded simultaneously

along with timing lines and event marks. At the end of the trial the paper would be removed and processed in a darkroom. UV recorders were becoming available which provided a quick look option with no chemical processing.

My further education continued at RAE Technical College, and later Farnborough Tech. Under the day release scheme I gained an ONC in Applied Physics followed by HNC in Applied Physics.

After the retirement of the group leader, the recording group was disbanded and I was transferred to an electronics group developing differential amplifiers and analogue to digital converters using integrated circuits.

I gained promotion to Assistant Experimental Officer. In the late '60s there was a departmental reorganisation and we were moved to RAE Bramshot, near Fleet. The group was tasked to design and build a magnetic tape data replay system to complement the MODAS system manufactured under contract by Plessey. The replay system was controlled by a Honeywell 516 computer and provided data output to computer compatible tape for further analysis, also a quick look option via a UV recorder. A similar system was built for RAE Bedford.

At this time I gained promotion to Higher Scientific Officer. In 1982, Bramshot was closed and all sections moved back to the Farnborough site. We returned to P70 Building. MODAS (Modular Data Acquisition System) was becoming popular so Plessey built a number of replay systems under contract. Farnborough and Bedford had replacements for their prototypes. AAEE Boscombe Down had one, also Rolls Royce Bristol. I looked after the Farnborough one which was situated in the new computer building.

I moved sections again and was involved with the development of an interface unit for the RAE ranges at Aberporth and West Freugh, which involved a number of trips to both sites. "Options for change" meant reducing staff levels. I took voluntary redundancy, which was effectively early retirement on 27th March 1992, and my time was made up to 40 years.

It was an enjoyable experience working in the RAE. I doubt whether you would see the like again.

During my time with RAE and in retirement I enjoyed a number of hobbies:

- I have played a double bass in a number of jazz bands in jazz clubs and festivals.
- I have joined the local U3A (Weymouth and Portland) Watercolor painting group
- I have a stamp collection of British and Colonials going back to Queen Victoria in some cases.
- I have a dog, Shih Tzu cross which keeps me active.

Michael Broad
14 March 2025

Alan BROWN

Brick No. 591 in Square 35



RAE 1957 – 2000
Apart from the Farnborough Air Show, my first involvement with the site was in 1957. I had left school after O Levels in 1955 and managed to get a job as an Assistant Scientific at the Ministry of Supply, St Giles Court, London. I was in a Division called RD Projects and my task was to calculate the aerodynamic performance of current jet fighter aircraft such as the Hawker Hunter and Supermarine Swift. During this time I was allowed day release to study Pure and Applied Maths and Physics at A Level and my subsequent success was, in no small measure, due to the support I received from the staff of my section.

I then applied for and awarded a place on a 4 year Applied Physics Sandwich Course beginning in January 1957 at the Northampton College of Advanced Technology, later to become City University. 6 months of study at College was followed by a 6 months placement at an appropriate Ministry establishment and mine began in GW Department at Farnborough gaining valuable hands-on experience of electronic circuitry.

Further placements were at the Fighting Vehicles Research and Development Establishment (FVRDE) measuring tank performance, IAP Dept. using analogue computers, GW Dept. working on force-feedback accelerometers and finally with IAP using transistors and building analogue recording systems for airborne use.

In January 1961 I was one of three students on the course awarded a First-Class Honours Degree and offered a position as an SO at the Blind Landing Experimental Unit (BLEU) on the Airfield site at RAE Bedford, an out-station of Farnborough. 18 exciting years followed during which I began building an Approach and Landing Simulator (ALS) for research into poor visibility operations, using the ALS for experiments, carrying out flight trials on steep approaches aimed at noise abatement, using head-up displays (HUDs) for manual landings in low visibility and also actual flight trials in fog – all concerned with Civil Aviation . During the course of all this I got married, started a family and gained promotion to PSO.

In 1979 I was invited to see Sir John Charnley, Controller of Establishments and Research, at his office in MOD, Whitehall. At the time he was responsible for 12 research establishments and required a scientist as a Private Secretary to control his outer office. Within a matter of weeks I was saying a sad farewell to all my colleagues at RAE Bedford and beginning the daily train journey to London. I found this to be a demanding role, requiring a rapid learning curve and often involving very long hours. However, I did begin to appreciate how all aspects of the MOD functioned.

After a tour of approximately 2½ years I was transferred to RAE Farnborough, where I remained for the rest of my career, and my family moved back south once again. My avionics background enabled me to join Flight Systems Dept. where I led a section carrying out research on the use of electronic cockpit displays including advanced HUDs for fighter aircraft.

Needless to say, there were many diversions along the way, and in 1991 the RAE began its transformation to the Defence Research Agency and then the Defence Evaluation and Research Agency.

In the early 1990s I became responsible for the conversion of a Tornado F2 into a trials aircraft with three full-colour CRT displays and a wide field of view holographic HUD in the front cockpit supported by digital recording and databus systems plus eventually a Ferranti Blue Vixen airborne radar, as used by the Harrier aircraft. This was a multi-million pound programme for which I devised the acronym "TIARA" – Tornado Integrated Avionics Research Aircraft. This was operated out of Boscombe Down, as with all the trials aircraft, and only ceased flying a few years ago.

I formally retired in 1997 but achieved special merit promotion to SPSO for the last 3 years of my service and became more involved with the management of air defence research programmes. Thereafter I was offered a part-time consultancy role and for the next 2½ years co-ordinated a collaborative research programme, Vista Warrior, with a team of scientists at Wright Patterson Air Force Base at Dayton, Ohio, concerned with all aspects of the man-machine interface.

Looking back, I have thoroughly enjoyed my career in the Scientific Civil Service and particularly the associated comradeship. This is why I am a member of FAST, attempting to preserve the aviation heritage of the Farnborough site.

Alec Frank BROWN

Brick No. 572 in Square 4



Craftsman Inspector - 43 Department
He came to the establishment in September 1940 from Vickers at Weybridge after the factory had been bombed. He was employed as a skilled miller in the Machine Shop until April 1962 when he joined the inspection Department. In the Machine Shop he specialised in milling small precision details, in nimonic alloys, a material evolved for turbine blades and He has been involved in almost all of the major projects undertaken by at the RAE.

In 1962 he transferred to Inspection Department where he had been engaged in checking gauges and measuring instruments.

For the last years he was employed in the Main Stores on the inspection of Metals and Goods and in January 1965 he was appointed an Apprentice Master to Apprentices in the craft, Until his formal retirement in December 1972, but continued his employment until August 1978 covering thirty-eight years at the RAE.

George W BROWN

Brick No. 209 in Square 39



RAE 1938-1967

George William Brown was born at Fawley, Bucks. (Nr. Henley-on-Thames) on 10th September 1902. The eldest of five boys, he was brought up on the family farm. He was educated at the one room village school and from there went to Henley Grammar School.

From school he went into the luxury river launch trade at Marlow-on-Thames and trained as a marine fitter, installing and maintaining engines and propulsion equipment.

He married Edna Luckin at Henley in 1933 and they settled in Marlow where daughters Shirley & Jenifer were born.



In 1938, at the time of the Munich Declaration, when war was looking likely and the boat trade was beginning to decline, a friend told him that there might be a suitable job at RAE Farnborough. His interview was successful and he joined the RAE. He moved the family to Frimley and spent the rest of his working life at RAE. A son, Richard, was born in 1943.

George became an aircraft fitter and spent much of the war working on the captured German aircraft being flown by Capt. Eric Brown and others. One wartime tale was of an experiment in Rocket Assisted Take-Off using a Fairy Swordfish. The doped fabric of the 'Stringbag' caught light immediately the rocket ignited and "nobody ever got out of an aircraft faster than that pilot". The aircraft must have been tethered for the test.

After the war, he was part of the RAE ground crew at RAF Wittering in November 1947 when Eric Brown was conducting fast landing trials in a Messerschmitt ME 163B Komet as part of the research into transonic aircraft design. The trials finished for good when Eric over did the landing speed and after a heavy impact finished up close to the perimeter fence.

George became an expert on the RAE's very varied collection of aircraft. I particularly remember him speaking of the Boulton Paul 111A delta, colloquially known as the 'Yellow Peril'. He once spent a week on an aircraft carrier (Illustrious?) while it cruised up and down

the Channel, presumably doing deck landing trials. He also spent a lot of time at RAE Aberporth in the 1950s supporting helicopter launched guided missile trials. He used to fly back and forth from Farnborough to Aberporth each week in the passenger seat of a De Havilland Chipmunk with his toolbox on his knees. A quiet man he rarely talked much about work.

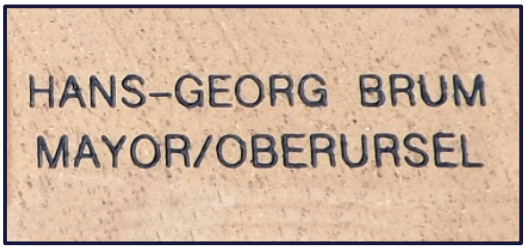
Later on he became an aircraft inspector and was a fixture of 'D' Shed until his retirement at the age of 65 in September 1967. When I was an apprentice in the early 60s one of his colleagues said to me, "What your father does not know about aircraft safety, is not worth knowing".

In retirement, he continued living at Frimley in the same road, although my parents eventually moved from one side of the road to the other from a detached house to a bungalow. He pursued his interests of gardening, DIY, the local church and family until shortly before his death in June 1992 at the age of 89.

Richard Brown. 1959 Apprentice intake

Hans-Georg BRUM

Brick No. 905 in Square 3



I have been mayor of Oberursel for eleven years. It has given us great pleasure to celebrate the 25th anniversary of our town twinning with Rushmoor this year. The relationship between our twin towns and our joint projects are things which are especially close to my heart. We are always happy to meet our friends from Rushmoor. We have celebrated a lot and worked on many projects together. Our partnership is alive due to exchange visits between schools, and with trainees and employees, but especially through friendships which have grown up between the local people in our towns over the years, and between those who are tirelessly working on projects and ensure that our relationship remains alive.

It is thanks to the aviation industry that travel connections between our countries are fast and simple. We would not be able to keep in such close contact without the contributions of Samuel Franklin Cody and the many other courageous men who devoted their lives to aviation. It brings the world together. It reduces distances, and we can see and experience other cultures for ourselves. It is my wish for our towns that this will remain so for a long time, and that we will be able to plan and do many more things together in the future.

Boyd BURGESS

Brick No. 262 in Square 14



Radio Department (RAE)

It has been my immense privilege to be personally associated with Radio Department (RAE) for over 30 years, culminating as the last Head of Department in 1988. The Department took on various guises from 1922, viz. Wireless and Photographic (No 10 Dept.), Experimental Wireless, W/T, Radio (in the early 1940s) and finally Radio and Navigation (in 1975). However the origins of 'radio' at Farnborough can be traced back to a founding member who had been a student of Heinrich Hertz at the University of Bonn in the early 1890s. Hertz had explained and demonstrated Maxwell's electromagnetic theory by producing and detecting what we now know as VHF/UHF radio waves!

In this context it is opportune to mention Wing Cdr de Burgh, the Service Head of Department in the late 1930s, who made a decision which turned out to be an 'instance of outstanding foresight', in that the development of an air and ground VHF short range radio telephone communications system was embarked upon. A team under Dr A.C. Bartlett, which included a future Director of the RAE (Sir Robert Cockburn), designed and developed such a system which was of the utmost importance in World War 2, e.g. the Battle of Britain and the Dambusters Raid amongst others.
The priority of the radio work within RAE can be summed-up by a quote from the then Director of RAE, Sir James Lighthill, FRS, on his departure, after 5 years, from RAE in Sept. 1964: "The most important job of the Director RAE during the past 4½ years . . . . . was his part in preventing the separation of work on r.f. aircraft equipment from that on other of aeronautical science and technology".

I venture to note that Sir James Lighthill was the most eminent person/polymath that the RAE was privileged to have appointed as Director. He eventually, among other appointments, became Vice-President of the Royal Society (1965-69) and The Lucasian Professor of Mathematics at Cambridge (1969-79) a post first occupied by Sir Isaac Newton.

My own particular research theme, spanning my career at RAE Radio Dept. can be summed-up as 'applications associated with the propagation of electro-magnetic waves'. These have covered antenna studies, VLF navigation systems, ionospheric studies related to missiles and satellites systems; and then involvement with various national & international committees at senior management level.

In conclusion, I wish to pay tributes for the support given to me by previous Heads of Departments and in particular Dr. T. S. Moss (1968 –78).

Garry BURT Msc Ceng MIMechE

Brick No. 137 in Square 15



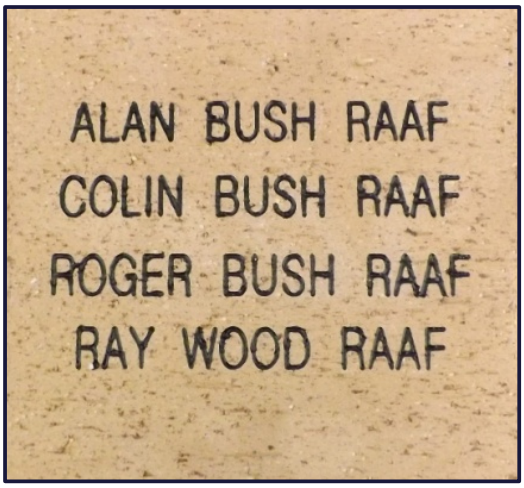
My apprenticeship at the then RAE Farnborough pulled me out of the narrow horizons of a rural farming community in the wilds of North Yorkshire into a different world and gave me an unequalled opportunity to enjoy a thoroughly interesting and worthwhile career in aerospace. After 5 years as a student engineer I was not only on the road to a post graduate qualification but also had a very broad practical understanding of everything engineering – an opportunity unfortunately lost to most of today's aspiring engineers.

I worked on many projects at the forefront of aerospace technology: Concorde, RB211, RB199, high lift devices and aerial delivery technology to name but a few.

Overall within the RAE, my apprenticeship launched me from Student Apprentice to Assistant Director and ultimately on to Production Director posts elsewhere in MOD – a far cry from working in the local County Council up here in Yorkshire! I would not have missed it for the world.

Alan, Colin & Roger BUSH and Ray WOOD

Brick No. 925 in Square 6



These gentlemen (RAAF), now all deceased, are my uncles. They all grew up in the south-eastern suburbs of Sydney, Australia.

They were all war service men rather than career types, and by good fortune all survived the war and went on to have successful careers in civilian life in and around Sydney.

Alan was the youngest and trained as a navigator. He was not long out of training when the atom bomb brought an end to hostilities, so he quickly returned to civilian life as an apprentice draughtsman, and finished up running his own architect's practice.

Colin became a Flying Officer and flew in Catalinas from Darwin, and in New Guinea, where he saw some lively action against the Japanese. After the war Colin joined David Jones (the biggest department store in Australia) as a tailor, and finished up as a director of the company.

Roger was the oldest of the three Bush brothers. He joined the RAAF in 1940 as an engineer (ground) and was attached to fighter squadrons in this country. He had become a Flying Officer before he was discharged in 1946, and had been closely involved in the air operation supporting Operation Overlord. After the war Roger became an engineer in civilian life, but heard the call and became a Methodist minister. He published several books and hosted a very popular radio chat show for many years, and also organised an annual Christmas Festival at Sydney Opera House.

Ray was in the RAAF from 1942 to 1946. He served with bomber squadrons in this country, rising to the rank of Warrant Officer. One Christmas he cycled through the snow from RAF Enstone (near Oxford) to Bredon (near Worcester) to visit relatives, and the next day cycled back again. Ray's last posting was at RAF Bottisford. After discharge he returned to Sydney and married my father's sister. He became a successful Estate Agent and died in early 2014 at the age of 90.

W G (Bush) BUSHELL

Brick No. 387 in Square 13



W.G. (Bush) Bushell (1908- 1968) transferred from A. E. E. Martlesham to the RAE Experimental Flying Department as an civilian engineer in 1937. From 1940 until 1953 he was the Chief Technical Officer of EFD serving as the senior civilian engineer alongside a variety of distinguished RAF Group Captains and Test Pilots. During World War 2 ‘Bush’ amassed a great deal of engineering knowledge of captured German aircraft and early jet propelled aircraft both British and German. During this period he visited the United States to share his knowledge of German aircraft, and at the end of hostilities he joined a small team of engineers to inspect and remove to the UK much German aircraft manufacturing and testing equipment.

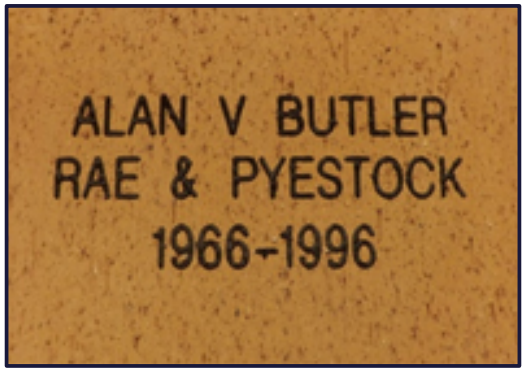
As the Engineer-in-Charge of ‘Airfield’ facilities Bush was also highly involved in organising the early SBAC shows and the RAE ‘Open Days’. Other duties included aircraft accident investigations, including those involving the Tudor and Comet airliner disasters, plus, sadly a significant number of aircraft being flown by RAE Test Pilots, many of whom were his good friends.

In 1953 ‘Bush’ became Head of Inspection at the RAE, a post he held until his retirement in 1968. His duties during this period also included responsibility for apprentice training. In addition to being a Member of the Institute of Mechanical Engineers, he was also Chairman of the Society of Licensed Aircraft Engineers."

I hope you can glean something from these memories. I myself was a Student Apprentice at RAE during my father's ‘reign’, but we tried hard to keep out of each other's way! I returned to RAE in 1962 as a Senior Scientific Officer in Mechanical Engineering Dept under the famous Miss Shilling. However, I left in 1964 after my involvement with the embryonic ‘space department’ convinced me of the growing abandonment by the then government of any desire to develop this activity. I married a Norfolk girl and became trapped by Norfolk, the graveyard of ambition!

Alan V BUTLER

Brick No. 788 in Square 2



RAE Farnborough and Pyestock - 1966 -1996

In May 1953, after attended the Eastbourne Technical College, I joined the Royal Navy as an Artificer Apprentice. The training lasted four years, being split into two sections, the first twelve months at HMS Fisgard in Cornwall, covered all trade aspects of naval engineering and included further education up to first year National standard. At the end of that period we were put into trade categories of our choice. As a lad I had always enjoyed building and flying model aircraft and also had a love for the sea, so it seemed only natural that I should opt to become an Aircraft Artificer, being seen as the best of both worlds. The final four months at Fitard concentrated on basic and general aircraft engineering. In September 1954 my training continued at HMS Condor in Scotland and lasted for two years and eight months covering the engineering requirements to maintain and repair the naval aircraft in current use by the Admiralty. Training completed I spent the next nine years serving on squadrons and shore based units, including two tours of duty aboard HMS Eagle, one with 806 Sqd Seahawks (the famous Ace of Diamonds squadron), the other being 899 Sqd with Mk 2 Sea Vixens. I left the Navy in 1966 as a Chief Petty Officer.

I joined the Royal Aircraft Establishment in November 1966 and worked initially in Aircraft Department as a Supervisor in C Hanger. It was the smallest hanger at Farnborough but the assortment of aircraft operated was amazing, consisting of a Beverley, two different types of Shackleton always maintained outside, whilst inside were a Meteor, two Buccaneers, the Institute of Aviation Medicine Hunter, another Hunter all of which were maintained by civilian engineers. These aircraft belonged to various Experimental Departments and were flown by RAF and Navy aircrew. Every two years the SBAC Airshow came around bringing a great deal of additional work for the whole of Aircraft Dept. Planning for the event began in February to ensure that the expected influx of UK and overseas visitors would receive the best service possible in September. I started on the show in 1968 as Supervisor of one of the skilled crews and over the years went up through the ranks until for the latter events I became Service Leader.

Besides their daily flying requirements, Aircraft Dept operated aircraft on many detachments in support of the Experimental Departments. Some were within the UK whilst others went abroad, sometimes for quite long periods. Where more than an overnight stop was required a servicing crew would usually travel either with the aircraft or join it at the venue. As a Supervisor I accompanied many of these trips, the longest being four months on a detachment to a US Air Force Base in Florida where we- operated a Buccaneer on trials. I remember my years in the RAE with many fond memories of the people that I knew, not only at work, but also socially.

By 1991 had been an SPTO for some time but a shrinking Aircraft Dept could not find a position for me and it was suggested that I might like to become a Safety Officer at DERA Pyestock, previously known as NGTE. After some consideration I accepted the challenge and whilst finding my way about the site and attended numerous safety courses, I discovered that it was an extremely interesting and rewarding profession. I became the Senior Safety Officer for the establishment with a staff of three and found myself once again in a very interesting environment.

In November 1996, the closure of Pyestock was on the horizon and I had to take what I considered to be early retirement. The Ministry had spent a small fortune on my safety training and. I decided to put it to good use. Heathrow Airport Terminals were under going massive improvements and I spent the next nine years as a Safety Advisor for contractors involved in the building of the Heathrow Express tunnels, upgrades on Terminals and finally on the construction of Terminal 5. When I reached my seventieth year, with some regrets, I decided to call it a day.

Dot BYE & Graham PIKE

Brick No. 47 in Square 21



Met at Filton in 1968 thanks to Concorde

Dot Bye was encouraged by her father, who spent his working life in Bristol's aircraft industry, to join the Data Processing Dept. at BAC Filton in 1963. Following his RAE [1960-1965] apprenticeship and further study at Cranfield, Graham Pike joined a team at Filton installing computer technology factory-wide to monitor Concorde build. The couple witnessed 002's first flight in 1969, married in 1974 and are the proud parents of a son and a daughter.

George Charles CALLINGHAM

Brick No. 331 in Square 38



I commissioned a brick in memory of my grandfather, George Charles Callingham (1890 - 1952) who worked at the RAE. My grandmother, Sarah Callingham neé Hoyle, aka “Dink”, used to talk about Cody, but I don't know how they met. George was in the BEF in WWI so I presume he was a career soldier meaning he was probably away a lot. I know he was in India at some time but again don't know when. They lived in Winchester Street and I believe George was an “Oddfellow”. He worked at the RAE in later life. My mother, Rosina Callingham, worked there in the late 30's and 40's. She was in a drawing office and used to draw plans of bombs etc during WWII. Rosina was evacuated to Frimley Park at some stage during the war. Her cousin Amelia Richardson also worked there. My father, Raymond Clegg, was in the RAE for a short time. I don't know how long Amelia was in the RAE though she and her husband, Jack Milford, were civil servants all their working lives.

Neil CAMPBELL

Brick No. 828 in Square 25



Born 25th January 1922 died 9th May 2011

Neil Campbell was born on 25th January in 1922 in bonny Scotland. He was the third child of four, the son of Archie and Graeme Campbell. His father was a pawnbroker which obviously proved to be of great influence later in life when bargaining with a salesman for a good deal!! He had a happy growing up in Greenock.

Upon leaving school he left Greenock for a career in engineering with the RAF, 149 Squadron, Mildenhall, which would in the course of time take him all over the world. He signed up as an engineer on 12/4/1940 and his training led him into a long and fulfilling career messing about with aircraft engines - and anything else which had moving parts, it was a job he truly loved.

On 26/4/1944 he was seconded to British Overseas Airways Corporation known as BOAC, as a Licensed Aircraft Engineer, and this was to be his life until he retired, moving to BA which took over BOAC in the latter years. He loved his job, working with Gypsy Moths, Boeing 707's, Comets and all other types of aircraft, but his true favourite was Concord. He loved everything about that plane and knew all there was to know about it. He retired in 1979 as Ramp Engineering Superintendant. During his career he was responsible for the team which serviced the royal aircraft. In 1952 he sent out a plane taking the young Elizabeth to Kenya, she flew out a Princess and Neil met her on her return when she flew back into Heathrow as a Queen, due to the King's death. His access to the runways was of particular interest to Annette (his daughter) when in 1966 the Beatles were passengers and Annette and her friends all mysteriously were 'ill' that day, skipped school and screamed for their idols as they flew in. He even got her a signed BOAC programme from the fab four.

I mentioned that Concord was the love of his life but another love was dear Gloria (his wife). In 1940 as a young RAF trainee, Neil was sent to Blackpool on a training course. Also in Blackpool was a young feisty blonde called Gloria having a girls away day. As Neil spotted Gloria and made appreciative remarks to his pal, he was bet a whole sixpence that he wouldn't approach her for a date. Neil, ever up for a dare or a challenge duly succeeded and danced the rest of the day away - and the rest is history. This happy union resulted in the marriage of Gloria and Neil in 1944 and soon his life took on a new challenge, that of proud and devoted father to a sweet bouncing baby girl called Annette, who always was the apple of her Dad's eye, easily able to wrap him round her little finger.

Neil was a happy, fun and friendly character. He would always be there to help people with advice or practical help and giving of his time and expertise.

He was a member of the Institute of Advanced Motorists. He taught both Gloria and Annette to drive. Not an easy task - with Gloria dismantling the gear lever in the A40 which she waved at him, declaring 'it just came out in my hand' and Annette who used to take his car and practice her skills in the road outside their house - on her own!! She was brought back to the house one evening by a concerned police constable after she took the car out on her own the night before her driving test!!. He certainly had his hands full with those two!! Both passed first time with flying colours, thanks to Neil's patience and skills.

One benefit of working for the airlines was travel, and Neil, Gloria and Annette spent many years having wonderful globe trotting experiences together, culminating in a round the world trip, taking in Europe, Asia, The Americas and later on Australia. seeing the sights and having fun, which Neil liked to do.
When Neil retired in 1979 they then moved to a riverside flat by the Thames at Staines, followed in 1980 by a two year spell in Sydney Australia where Annette was living, and in his leisurely retirement he ended up digging drainage channels and helping to construct her new house. Then he returned to England in 1982 to Christchurch, Dorset, most probably for a rest.

He had a love of sailing and owned several boats and was a member of Christchurch sailing club where he moored his 32' westerly called Noah- Noah named after an island in the South Pacific. He went on courses to study navigation and boating skills. Eventually moving there for several years where both Neil and Gloria did voluntary work at the Christchurch Priory Gift shop. They were also regular church goers at St Georges Church in Christchurch where they tended the Church gardens and were sidesmen for services.

When his health deteriorated in 2007 Neil and Gloria came to Frimley to be nearer to their daughter Annette. Regrettably in 2011 Neil's health deteriorated further and Gloria cared for him at home until February when he became increasingly frail and unable to cope with normal living so he took up residence in Cedar Lodge Retirement Home in Frimley Green.

The sad thing is that he passed away the day before they would have celebrated 67 years of married life.

Neil will always be remembered with much love and affection by all those who knew him

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Zoe CAMPBELL

Brick No. 530 in Square 12



My Mummy does a lot of work for the museum. I come to help when I can. It is fun and I really love the aeroplanes and the Lightning simulator. I helped her with the children's quizzes and was given a badge that says I am Chief Quiz Tester. That makes me the youngest volunteer. When I saw the bricks I really liked them and wanted to have one. Mummy asked if I could and she was told I could. It was my 9th birthday on the day of the Cody Statue unveiling and I came up to help Mummy. We were on the gate checking tickets for the important guests and I handed out the programmes. It was scary at first but then it was fun. Everybody was very nice and even sang happy birthday. I had a lovely time.

Dave CAMUS

Brick No. 758 in Square 26



Model making Apprentice 1957 – 1962

I started my apprenticeship in 1957 and after two and a half years of basic training including turning, milling, fitting, forge and foundry work. I spent the remaining years in the model shop 39 Department, working on 'M' wing and Swallow, which were Concorde wing development models for the wind terminals at RAE Bedford.

I left the RAE Farnborough in 1963 to join BAC Weybridge, working in the 13' x 9' wind tunnel, machining BAC 111, VC 10, Swing wing and Concorde models is on a Societe Genevoise 7A jig borer.

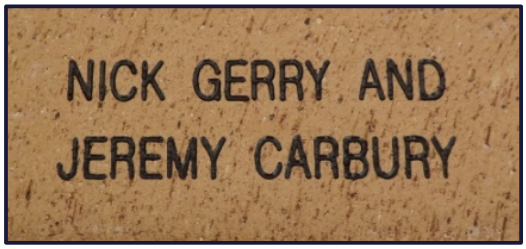
From Weybridge in 1965 I went on to work at the Pathe Eng. in Ascot. Joining as a miller and working my way up through planning to Works Manager. The company was basically an aircraft sub-contract work on high-pressure compressor bearing housing and main engine mountings on the Spey Engine. Drain tanks on the Rolls-Royce RB 211 Turbo fan, these tanks scavenge unburnt fuel, by the way fingers in the exhaust, and re-burnt. 'A' frame and hydraulics which operated the nose on Concorde, also some major parts of the afterburners on the Bristol Siddeley Olympus Engine, all made in heat resistant stainless steel called Wasp alloy, manufactured by Henry Wiggins, very difficult to machine.

After 10 years I left to start my own business multi-trade precision. None of this would have been possible without my RAE background.

I'm now retired but keep some of my machines, to enable me to build two 5 inch gauge models of Stainer Jubilee steam engines, 1 for me, and 1 to sell. I really enjoy building these engines, keeps the grey cells active.

CARBURY Family

Brick No. 661 in Square 19



The Carbury family has had close connections with the RAE going back to the late 30's when Charles Carbury was, as a GPO engineer looking after the telecommunication needs of the establishment. His son Nick was also one of the resident Post Office (now BT) engineers at the time when the automatic exchange was installed within the factory during the 60's.

The whole family have always been really interested in aircraft and flying and have not missed a single Farnborough air show. Geoff Masterton, an-ex apprentice, who was a leading light in the RAE aero club was a very close friend. At various times he would take members of the family flying in a variety of aircraft that were hidden away in Q shed next to Meadow Gate, now long gone.

Pat and John CARD

Brick No. 651 in Square 19



My wife and I moved to Farnborough 49 years ago. During our time in Farnborough we have enjoyed the air shows and the close association with the aircraft industry. This year we celebrated our Golden Wedding Anniversary and thought that the engraved brick would be a good way to mark the event and at the same time support the Cody Statue Project.

Thomas CARMICHAEL

Brick No. 360 in Square 5



Thomas Carmichael came to Farnborough from Barrow in Furness Lancashire 1943 as an electrical apprentice. He was made redundant 1946 (as a thank you for his war efforts!). He was re-employed in 1947 and went on to become a higher Scientific Officer in Radio and aviation Department. He worked for many years with the Sea King Helicopter. He retired in 1983 and unforeseen in lesser light developed Alzheimer's passed away in 2007 aged 84.

Leslie CARTER

Brick No. 88 in Square 40



We donate this brick story in memory of our Dad and Father-in-law, who joined RAE at the end of WW2. During the war he served in the RAF where he was trained as an Aircraft Fitter. He was able to put these skills to good use at RAE until his retirement in 1975.

A R CAWTHORNE

Brick No. 739 in Square 18



R. Cawthorne, christened “Alric Ronald” but always known as “Dick” to friends and family, was directed to RAE Farnborough in 1947 after obtaining a 1st Class Honours BSc, in Aeronautical Engineering at Queen Mary College, University of London where he studied under N.A.V. Piercy. He had already applied to join the RAF since he was passionate about flying but the powers in control of “National Service” decided otherwise. His disappointment was somewhat assuaged when he learnt that it would be possible through the RAE to have flying lessons.

He joined Aeroflight section and worked first on problems of dynamic lateral stability which involved the flight testing and instrumentation of control characteristics of many aircraft including the Hastings, Tudor, Dakota and Vampire. Later he researched aiming flight problems with Meteors and the Sabre at this stage working with the German engineers Deutsche and Pinsker who were “seconded” to RAE after the war. The plane he was most enthusiastic about however was the small German “Ercoupe” which he seems to have been allowed to investigate almost singlehanded.

He was able to fulfil his ambition of acquiring his pilot’s licence in a Tiger Moth at the Flying School at Rochester. In December 1955 he transferred to Guide Weapons Department and embarked on the preparation and planning for acceptance trials at Woomera in South Australia of Red Duster (“Bloodhound MK1”?) which entailed joint planning with the Australian

scientific civil service, the organisation of necessary facilities, liaison with companies and Service units etc. the set up which was known as 8JSTU (Joint Services Testing Unit). Three years in Salisbury, S.A. followed, from 1957 to 1960 while tests were carried out. During that time he was promoted to PSO.

On his return to the UK in 1960 he was in charge of the evaluation of the Bloodhound Mk1 trials and advisor on Bloodhound Mk2 and Red Top and much involved in the development of mathematical modelling of missile systems.

In 1966 when the weapons programme was closed down he left RAE and moved to RRE Malvern where he became superintendant of the Assessment Division At this juncture he was made SPSO. Later he moved to RRL at Crowthorne as head of Road Systems section where he stayed till retirement. There is no doubt however that his most fulfilling years were at the RAE.

Peter CHADWICK

Brick No. 1018 in Square 51



Peter lived in Guildford until he was called up in 1946. He served in Palestine with the Royal Signals and was demobbed in 1948. He returned to Guildford and joined the RAE in 1949 (initially as an industrial worker) and cycled to Bramshott daily for an 07:55 start!

He married Peggy in 1951, studied for ONC (Ordinary National Certificate) and HNC (Higher National Certificate) and was made a member of staff. In time he moved to Ball Hill Range and was eventually responsible for it until his retirement in May 1987. He was a family man, enjoyed DIY, especially woodwork and gardening, which led to wine making. The family, which included 2 daughters had many happy camping holidays in the west country.

Peter was a very sociable man - always the life and soul of a party. He enjoyed music of any kind, his pride and joy was his car. In 1952 he bought a 1938 Morris 8 for £230! He and Peggy toured England with a 6 foot ridge tent and a feather bed! This vehicle, with careful maintenance lasted until 1955 and was then sold for scrap for £8! With the arrival of the elder daughter he bought a more reliable vehicle and by his retirement, was the proud owner of a brand new Maestro.

Sadly Peter died of Cancer in January 1988 and is still remembered with affection by all who knew him.

George and Winifred CHARLTON

Brick No. 764 in Square 18



George Charlton 1920-1980 and Winifred Charlton 1923-2013

George started his working life as an apprentice electrician at Broomhill Collery Northumberland but left to join the RAF as a regular reaching the rank of Flight Sergeant working as ground crew, although took part in some reconnaissance flights. During the war he saw service in India and Ceylon and when demobbed joined the North East Electricity Board in Alnwick where Winnie and he raised their family.

In the mid-sixties he joined Swann-Hunter in Newcastle which proved to be the catalyst for his move to the south when he was made redundant.

The family arrived in Farnborough in April 1968.George was proud to start work in the R.A.E., becoming a supervisor, working on the Concorde Project. Both he and Winnie enjoyed evenings with friends at the R.A.E. Sports and Social Club, and George served a term as Club Secretary.
Winnie joined the R.A.E. in 1971 and soon learnt new skills in circuit boards, gaining promotion to Supervisor in 45 Dept. She enjoyed being able to visit aircraft for which she had prepared the electrics and was thrilled with her flight in Concorde, never having flown before.

Unfortunately George died shortly after his retirement aged 60, while Winnie continued to work until 65, and lived to be ninety.

She often spoke proudly of their involvement with the R.A.E. and the skilful work she had undertaken.

CIVIL SERVICE PENSIONERS ALLIANCE

Brick No. 363 in Square 5



ALDERSHOT & DISTRICT CSPA

Brick No. 364 in Square 5



The Civil Service Pensioners Alliance (CSPA) is a campaigning and social group for former Civil Servants. Our local group Aldershot and District CSPA was founded in 1985 by retired RAE employees. The meetings were held in the Assembly Rooms on the RAE site. About 42 members attended the first meeting. Most of the Group at this time were employed by the Royal Aircraft Establishment. In a key surrounding area of MOD establishments membership spread and grew rapidly to over 1000. At present we have 827 members in our Group and now hold our meetings at The Royal British Legion, Farnborough. We normally attract 30-40 members to the meetings.

George CLEMENT (Rushmoor Rotary Club)

Brick No. 900 in Square 3



In 1963 I enlisted into the Corps of Royal Engineers and did my basic training at Southwood Camp in Cove. (Now taken up by the Southwood development)

As with any new recruit into the Army one is told about the history of the RE's, as are other recruits in other branches of the Army. I remember being told that the Royal Engineers can trace their history back to William the Conqueror although not as a regular unit in those days. We were also told about the involvement of the Royal Engineers in the formation of the Royal Flying Corps, later to become the Royal Air Force.

During my time in the Royal Engineers I worked in Movement Control and this involved working with and alongside the RAF in various parts of the world. Needless to say there was a great deal of leg pulling that took place between the Sappers and the 'erks' but overall we worked well together. In fact the Corps March is called 'Wings' a reference to the early days no doubt of the Air Balloon Battalion based in Farnborough in 1911. I know that for years the RAF have tried to persuade the RE's to sell them the Corps March, without much success.

I left the Royal Engineers in 1966 and spent a year working in the RAE (The Factory) but left to earn more money and subsequently went on to train to be a teacher, which I did for over 30 years.

As a member of the Rushmoor Rotary Club I became involved with the Club in helping with the Cody Statue Project and on seeing the bricks alongside the statue was quite surprised, maybe a little disappointed, that there was no brick referring to the Royal Engineers. I decided that I ought to rectify that by 'purchasing' a brick with just my name and Royal Engineers on it.

Jack (Walter John) CLENNELL

Brick No. 427 in Square 29



4 April 1933 First solo flight as pilot - Royal Singapore Flying Club - DH Moth Seaplane GAADK

Career
1925 - 1929 Trainee executive, Asiatic Petroleum Co Ltd, London
1929 - 1933 Trainee executive, Asiatic Petroleum Co Ltd, Siam
1933 Trainee executive, Asiatic Petroleum Co Ltd, Singapore
1934 - 1936 Trainee, College of Aeronautical Engineering
1936 - Trainee, Percival Aircraft Co.
1937 - Trainee, AID A.M. Kidbrooke and Didcot
1937 - 1939 Examiner, AID M.A.P. Airspeeds, Portsmouth
1939 - 1940 Senior Examiner, AID M.A.P. Portsmouth Aviation
1940 - 1941 Senior Examiner, AID M.A.P. Airwork General Trading Co, Southern Aircraft, Gatwick Airports Ltd.
1941 - 1942 Senior Examiner, AID School, Bristol
1942 - Chief Examiner, AID Bristol Aircraft, Filton
1942 - Chief Examiner, AID Bristol Aircraft, Whitchurch
1942 - 1943 Chief Examiner, AID Bristol Aircraft, Weston-Super-Mare
1943 - 1944 Chief Examiner, AID Cardiff District Office
1944 - 1945 Chief Examiner, AID S.W. Area H.Q. Bristol
1945 - 1946 Chief Examiner, AID Gloster Aircraft, Hucclecote
1946 - 1947 Senior Examiner, AID Western Airways, Weston-Super-Mare
1947 - 1948 Works Superintendant, Field Aircraft Services Ltd, Tollerton, Notts
1948 - Works Manager, Nottingham Electro-Plating Co
1948 - 1949 Works Manager, Pernex Ltd, Alfreton, Notts
1949 - 1951 T.G. II AID MoS, Nottingham District
1951 - 1963 T.G. II RAE Inspection Department, Farnborough
1963 - 1964 T.G. II AID MoA Hawkers, Dunsfold
1964 - 1966 T.G. I AID MoA Hawkers, Kingston
1966 - T.G. I AID MoA Hawkers, Dunsfold

I do know that while at the RAE he was responsible for flight clearance for the planes he dealt with, and was also very much involved with the ETPS (Empire Test Pilots School). Apart from that, he told me very little, saying “I can’t tell you what I do – it’s secret.”

With regard to my career, the details are:-
1953 (6 months) Rheostatic Company, Frimley (Soldering dept).
1953-1958 5 year Craft and D.O. Apprenticeship - R.A.E. Farnborough.
1959-1961 Royal Air Force (National Service): Junior Technician (Ground radar).
1961-1965 Royal Aircraft Establishment: Draughtsman
1965-1969 Information Handling Ltd (Formerly) Materials Data Ltd: Engineer
1969-1973 Marconi Space and Defence Systems Ltd: Mechanical Design Engineer

1973-1979 EASAMS LTD:
Mechanical Engineer (2 years in ESAMS, Sydney, Australia)
Mechanical Project Engineer (MVEE, Chobham, Surrey)
Project Engineer (BNOC, Thistle Oil Platform)
Principal Engineer (BNOC, Thistle Oil Platform)
1979-1986 Taylor Woodrow Offshore: Project Engineer-Marathon Oil, Brae A & B platforms
Taywood Data Graphics: Systems Engineer
Project Manager
1986-1993 MR-Data Graphics: Project Manager
1995 J&J Training Services: Computer Course
1996 Farnborough College of Technology: Computer Course
1996-1997 BPFM Ltd. Technical Admin (Aldershot - Army Facilities Management)
1997-1998 WS Atkins Ltd. Assistant Works Service Manager (Aldershot - Army Facilities Management)

After my apprenticeship ended, I stayed on in the RAE Aero DO while I completed one final subject at evening class before doing my National Service. When I completed my NS, and returned to the RAE, I was in the Space dept. drawing office until I left in 1965. The computer courses I did (1995, 1996) were during a period when I was otherwise jobless.

W C CLOTHIER

Brick No. 465 in Square 36



In 1937 Mr W C Clothier was working on a problem of carburettor icing which was causing the engines to stop, the problem was so elusive that it become known as ‘Clothier's Icing’ amongst the pilots and boffins. So I thought as my grandfather worked at the RAE from 1924 until 1964 then it was worth having a brick placed on the project.

Anthony Russell (Tony) COBBETT

Brick No. 325 in Square 13



My Father, Anthony Russell Cobbett – known as Tony – was born in Farnham, Surrey and lived there all his life. He was the eldest son of Margaret Lilian and John Russell and it was a very proud day when he won a scholarship to attend the Farnham Boys Grammar School. His father served in the war and ended his days as a Chelsea Pensioner, passing away in 1941.

Tony was a very popular figure in Farnham, as being a distant relative of William Cobbett, most people knew the family and his trips into town always took longer because he always met someone to talk to!!

He served in the Navy during the war and thankfully came home to marry Kathleen Mary Hopgood in 1948 and they had 55 happy years together before he passed away in April 2003. His standing joke of his long marriage was ‘If I had done murder, I would be out by now!!!’ He was a very sporting man, playing football, cricket and bowls – he was also known to have the odd game of cribbage. He was also a founder of the Farnham & District Sunday Football League, and I remember spending many a Sunday making tea and selling programmes.

After the war he worked at Crosby Doors and then went on to be a postman. He took the Civil Service exam and then went on to work at the RAE for 32 years, retiring in 1984. He was a popular man, always smiling and helpful, and I'm sure most people remember him for cycling to work every day along the Farnborough Road, so I think it is very appropriate that he has brick 325.

During his retirement he liked to travel and had many happy foreign holidays, returning on one occasion to New Zealand where he had befriended a family during the war. He was very proud of his 3 grandchildren and would do anything for them – spoiling them rotten in other words.

Alexander Arthur (Bill) COLES

Brick No. 152 in Square 23

Fred COLES

Brick No. 152 in Square 23



Bill Coles

Alexander Arthur Coles (Bill) EX RAF Started at the RAE September 1954 as ground service "A" hanger EFD 32 Dept. Retrained as safety equipment officer 1956. 1956 to 1968 worked at the Empire test pilots school. Was pals with Trubshaw of Concord fame and Al Warden who flew an Apollo mission. When they moved to Boscombe he went on to work for Hawkers at Dunsfold. He was my dad and had a great sense of humor. The tales he would tell us of the laughs they had at work are a legend and I am now telling them to my grandchildren. He died to young but I will always think of him. Great guy.

Fred Coles

Ex RAF. January 1950 to October 1993. Radio mechanic EFD Dept 32. Flew in the Comet all over the world. Always brought me a gift from his travels. Again Coles sense of humour. Still going strong at 84 I will mention Sunshine Airways. You old RAE boys will know all about that?

Allan Coles

Paul COLLINS

Brick No. 182 in Square 31



I was born in Gosport, Hampshire on 10 May 1948 and nearly came to RAE Farnborough as an apprentice in September 1965 but I decided to join the EID Aquila apprenticeship scheme in Bickley Kent instead. RAE Farnborough and Aquila were both Ministry of Aviation at that time. My parents had moved to Chislehurst, Kent in 1954 when Dad got a job at Aquila. My father was Dennis Jack Collins (born 25 July 1922, died 4 April 1987), my mother Patricia Emily Collins (neé Cox, born 11 July 1924, died 3 December 2009) and my younger twin sisters were Diane Patricia and Susan Denise who were born in 1952. My twin brother and sister Kevin John and Alison Margaret were born in 1956 after our move to Chislehurst. Dad was a Radio Amateur (G2FLB) and had an association with Radio Department at RAE Farnborough through Wally Herbert's Transglobe Expedition in 1969. Radio Department's Cove Radio Station kept in radio contact with the expedition from Monday to Friday and my Dad took over at the weekend. I used to get up at the same time as Dad at the crack of dawn to listen to the morse code transmissions from Point Barrow. Dad was in Air Radio in MOD(PE) and worked closely with Dr. Boyd Burgess, Division Leader of Air Communications in Radio Department (see Dr. Burgess' own Brick Story) in the 1970s when I was working in Medical Physics Department in The Royal Postgraduate Medical School in Hammersmith Hospital in London.

I was looking for a move out of London for myself and my family. Dad had regular meetings with Dr. Burgess who he called his opposite number and I was invited to join Dad at such a meeting in the Autumn of 1979 when I was given a tour around the department in P161 Building. I applied and started work on 4 August 1980 in the Beyond Line of Sight Communications Section and my Section Leader was George S May (see George's brick story). My first job was low bit-rate data coding and decoding with forward error correction. HF Communication links were set up between Farnborough and Bodo in Northern Norway. I speak fluent Danish because my wife Marie is Danish and I started to learn when we met in 1973. The Norwegians could understand my Danish and I could understand their Norwegian! My next job was called DVI (Direct Voice Input) which was to use a speech recogniser as a voice coder to transmit voice data over an HF data link. The speech recogniser was programmed with a short reconnaissance vocabulary and was installed in Buccaneer XW986. For the trials, XW986 flew beneath the radar line over the English Channel.

The pilot spoke the reconnaissance report into the radio system, the words were recognised by the speech recogniser, and the number of each word in the vocabulary was transmitted to Radio Department's Cobbett Hill Radio Station where the appropriate word was spoken by a speech synthesiser. This was the first time ever that a speech recogniser had flown successfully in a military fast jet aircraft. In 1989 I was chosen to join the section that carried out research in response to special military needs. This work lasted for 4 years until Air Communications Division was moved stock and barrel to Great Malvern and the RAE had become DRA. This move coincided with our daughter Hannah's A Levels so I did not want to move away from Farnborough and disrupt her studies.

Dr. Graham Rood, now a FAST Trustee, was the Division Leader of Human Engineering and helped us by offering me a job in his Division. I continued with my DVI work with Graham but this time the application was to assist pilots to fly their aircraft rather than as a speech coder. The applications were Tornado GR1 ZA326, Lynx ZD328 and a Devon and Cornwall Police BK117 helicopter. I joined a NATO Group that dealt with military applications of DVI, The Technical Cooperation Programme (TTCP) and a Bilateral Research Programme with the US Army both of which dealt with helicopter pilotage.

I also worked on the MOD-sponsored CONDOR programme (Covert Operations Night and Day in Rotorcraft) and the research programme D/NAW (Day/Night, All Weather), again for helicopter pilotage. I worked on the VEIL rig (Virtual Environment Integration Laboratory) and published a number of Anthropometry reports.
This was in the year 2001 when the government agency that RAE had become on 1 April 1991 was 75% privatised (QinetiQ) and 25% retained as a government agency [dstl]. I was retained in government probably because I was involved in the international committees that could only accept members who were civil servants. My international work continued with a significant difference - I was no longer part of the research team but reported the research work that was sponsored by the MOD and carried out in industry (mainly QinetiQ). This continued from July 2001 when Dstl was formed until I retired on 26 October 2007. I am now a FAST volunteer from which I will never retire.

Paul Collins, 8 October 2013

George, Alice, Geoffrey, Dora & Peter COOPER

Brick No. 663 in Square 11



1915-18 1936-68

On completing his apprenticeship at his father's workshop in Romsey, Hampshire, George Cooper was directed to the RAE for wartime (WW1) service as a turner in the 'R' Department Machine Shop. While at Farnborough he fell in love with and married his landlady's daughter, Alice Howlett, who was a telephonist at RAE. They left at the end of the war and moved back to Romsey to work with his father.

Their son, Geoffrey, was offered an Engineering Apprenticeship at RAE for the 1936 entry. On completion of his training he was appointed Technical Assistant to the Naval Aircraft Department until 1946. On post-war redundancy he was appointed to the Heavy Research Department of the Ministry of Works London headquarters as Assistant Engineer. Here he was engaged on the supply of equipment and facilities to a variety of Government Research Establishments, primarily the RAE but also with Aberporth, Fort Halstead, Malvern, Spadeadam and Westcott. At RAE he was responsible for the conversion of the Star Hill Convent School into the Apprentices' College and Workshop; the Generator Test House; adaptation of 134 Building; 177 Building; the updating of the High Speed Wind Tunnel; the Ewshott Radio Stations and the entire development of the Wind Tunnels and Gun Ranges on the Ball Hill site.

In 1960 he was directed to NGTE, Pyestock, for the design, construction and commissioning of the "Concorde" engine and intake test rig - the massive Cell 4 project. On completion of this in 1966, he was transferred across to the Institute of Aviation Medicine as Site Engineer in charge of the man-carrying centrifuge and the vibration test rig. He left the IAM in 1968 to take up a Senior Engineer position at the Building Research Station at Watford, Herts. Although not on the RAE staff he feels that his name being on a Cody brick is justified by his long association with the Establishment.

Dora Cooper, a daughter of Herbert Dean (who is a subject of another Cody brick) transferred from Air Ministry headquarters to RAE in 1944, as a Clerical Officer, on her marriage to Geoffrey. She resigned in 1946 to start her family.

Peter is a son of Geoffrey and Dora, he became an apprentice for the 1963 entrance. On completion of his training he served with Messrs Airwork on "Lightning" aircraft with the Saudi Air Force. With the termination of his stint there and his return to the UK he was appointed as Insurance Assessor with Airclaims at Heathrow, remaining with them until his retirement. He has a Cody brick of his own.

Peter J COOPER

Brick No. 641 in Square 27



Peter Cooper has been interested in the aircraft of the RAE since he was in short trousers, a legacy started with his father. Details of the aircraft at Farnborough were recorded in detail and this continued throughout my aircraft apprenticeship (1963-1968) and carried on right through to the final departure in October 1994.

The passion resulted in a book titled “Forever Farnborough” - fly the limits 1904 to 1996, published by Hikoki Publications in 1996.

Then they followed a further detail book titled “Farnborough – 100 years of British Aviation) published by Midland Publishing in 2006. Further book projects are also in the pipeline.

Notwithstanding the above books, I have been involved in photography recording all the building work i.e. demolishing old buildings and construction of the new on the old RAE/ DERA site and throughout. The airfield for the past 20 years, and this still continues today. Much of the material is lodged in the FAST archive.

Indeed I am looked upon as the aircraft and airfield historian for the RAE/DERA and for the Tag Aviation today.

Dave CROCKFORD

Brick No. 81 in Square 32



1984-2012 RAE-QQ

After many childhood visits to watch the Farnborough Air Shows I was determined to get an apprenticeship at the RAE. In September 1964, I travelled from my Dorset home for hostel living and started a Craft Apprenticeship. Following two years of basic training I specialised in the trade of Toolmaker, spending my final years of training in 39 Department. The department manufactured wind tunnel models and associated equipment for the various RAE tunnels at Farnborough and Bedford. I made various futuristic aircraft models, and also helped to make models of the MRCA (which became the Tornado), Hawk, Airbus A30Q, and the EAP (which became the Eurofighter Typhoon) along with the calibration model for the new 5 metre wind tunnel. I also saw the introduction of computer controlled machines to manufacture these very accurate and complicated aerofoil shapes.

These were great times seeing the future aircraft in their early days of development, also making urgent specialist equipment for the armed forces in times of strife, as happened during the Falkland crisis. After many years and two promotions when I attained the status of Tool Room Foreman, the powers that be decreed that if I wanted to get on in the MOD I would have to diversify, so I transferred into the Mechanical Maintenance department, 36 Department. This department specialised in the maintenance of all mechanical plant with in the RAE. Wind tunnels and associated equipment such as compressors, large gearboxes, machine tools and airfield safety equipment were just a few of the types of equipment repaired or maintained. If it moved, rotated or made a noise it was looked after by 36 Department. These were very interesting and exciting times as work was required all around the country in the various ranges and RAE Establishments. In this short write up it is not possible to mention all the great times and work carried out, or even the great characters who I worked with, this would fill a book.

Unfortunately like all good things they must come to an end. All the workshops closed down when the RAE went through the course of change and become a private concern. Fortunately being in the maintenance section this work still had to be carried out. I finished with the RAE and immediately started with the new contractors brought in to carry out the tasks originally carried out in house. During the next years I transferred from one company to the next as the contract was renewed.

During this time the old RAE site closed and a brand new purpose built site opened on the old Concorde test site. Cody's Tree was moved from its original site by the Black Sheds to the new site. All that was left of the tree on the old site was the low chain link fence around the area where the tree used to stand. Following discussions with another Ex Apprentice (Bob Sockett) I arranged through a stone mason in Church Crookham, to have a piece of Portland Stone with a carving of the tree on it and with the original plaque, put down on the site. This now marks the site of the tree's original position.

Several years later I was asked to refurbish the tree itself. In 1959 the wooden tree was replaced with an aluminium copy, the paint of which was finally wearing away, showing the aluminium casting. Lichen was also growing on it. I managed to find the RAE report written following the manufacture of the replacement tree. (From another Ex RAE apprentice, Brian Wright who was in the foundry at the time the tree was cast). In this report it stated that the casting was undercoated, painted and flocked). The colour was not mentioned. I spoke to Bill Rumble who was in Cody's fabric and paint shop when the tree was painted. He told me that they just painted it with the brown paint they had in the cupboard at the time. I remember the tree being dark brown when I first saw it in 1964. Following talks with the new site managers it was decided to paint the tree in the colours it is now, as they thought it looked more natural after being very weathered and with the lichen. I took many photographs of the tree prior to having a protective tent built around it, the tree was then sand blasted, painted with a protective undercoat and finished by hand in colours as close a match as possible to the weathered replica. The work was carried out by an artist, with the paint mixed to match the variety of colour and shades. When it was finished many people did not realise it had been re-painted. Job done.

In 2011 the maintenance team were taken back in house so I had gone full circle. In 2012 it was time to retire. I can now look back over the last 48 years with pride, after serving the best apprenticeship in the world and working in the premier aeronautical site in the world. You cannot get better than that.

God bless Cody and the RAE.

Clifford CROFT

Brick No. 934 in Square 7



I joined the Royal Aircraft Establishment as a centre lathe turner in 1950 following service at the Royal Ordinance Factory Patricroft Manchester. Working in 45 department, I became involved in precision machined components for rocket and missile experiments. I later worked on parts for the Concord test facility, kinetheodolite camera and air to air combat simulation for flight systems. During my time at the RAE I was apprentice master for second year machining apprentices.

In 1980 I was awarded the Imperial Service Medal I took an active role in the RAE benevolent fund as a committee member and served as chairman for 10 years prior to my retirement in 1983 after 33 years of service.

Phred CROSSBY

Brick No. 143 in Square 15



RAE April 1957 – 1964

Having grown up in the back streets of Islington and graduated in summer of 56 from a Secondary Central school with no sixth form, I started working as an office boy in the City.

My ‘O-level’ results were better than I expected, I applied for a job in the scientific civil service as a lowly Scientific Assistant. Having had the experience of being blown off my feet by the world’s first cruise missile (Doodlebug), being able to recognise a Spitfire from a Hurricane before starting school and being an avid reader of the Eagle and Biggles stories, RAE Farnborough was the only place worth joining.

I applied in 56, joined in April 57 owing to defence cuts, along with a group of other penniless waifs. I completed the introductory course at RAE College (later to be Farnborough Tech.). I was sent to IAP Dept. (instrumentation and photography).

My first project was the Integrated Flight System for the, yet to be in service, English Electric Lightning. An urgency occurred as the naval personnel on the project wanted the system released to equip aircraft on a carrier due to go on a two year tour in the Far East. The Navy guys killing themselves with pills so they didn't sleep for several days to enable them complete the work before the carrier sailed. The RAF supplied a number of Gloster Javelins to be fitted out with the integrated system for trials. These were done at Cranfield and I went with various equipments in the DeHaviland Dove which shuttled between various establishments and diverted to Cranfield. However as we took off the pilot urgently requested that all passengers move to seats at the front. When I unloaded my equipment from the little compartment at the back the pilot had a small fit.

I then worked for a short time doing measurements on a lens for a low level reconnaissance camera, fitted to the PR Supermarine Swift.

Most of the equipment we used for measurements and experimental lash-ups were German war booty, including the wonderful mechanical calculator. Black tape and other bodge fixes were standard for temporary experiments (even for flying as long as the flight safety guys didn't see them).

I then worked keeping a temperature controlled room and oil bath, with standard cells, under control while doing measurements on accelerometers for the Blue Streak ICBM. This work came to an end when the rocket was diverted to a civilian space programme.

A short diversion assisting in measurements on various designs of tuning folk gyroscopes followed, most interesting as a research project.

My next project was TSR2, where the characteristics were modelled and flights simulated on a large analogue computer. The computer consisted of a large number of ancient valve operational amplifiers. I spent more time repairing the Op Amps than anything else.

Gary Powers got his high flying Recon. Aircraft shot down and TSR2 now needed to have strategic capability as the V bombers were now at risk, with the Blue Steel stand-off bomb not having the range to protect the bombers. However, the US were developing an increased range stand-off bomb, until some zoologist adviser to MoD told the US that we expected it to be cancelled so they did!

Even then in the early 60's the systems used by TSR2 were suggested as being ideal for an unpiloted aircraft (the cruise missile, an updated Doodlebug). Also the later Tornado met all the necessary specifications of the TSR2.

During all this fun I managed to become an Assistant Experimental Officer, but soon after went Cranfield and after the change in government decided RAE did not look so interesting. So I did not return but entered industry.

Wayne CROSSLEY

Brick No. 271 in Square 36



I joined N.G.T.E Fire Service in June 1978 and amalgamated with the RAE in 1984 and served on the Airfield until the year 2000 and then carried on my Fire Service career on the QinetiQ site until June 2010

Percival Edward CROSSON

Brick No. 804 in Square 2



Percival Edward Crosson was my great uncle. He was born in Chattrenden Kent in 1882. His three sisters and one of his brothers, my grandfather, worked in the balloon factory, so when it moved to Aldershot the family came too. Percy was only nine at the time so he went to the East End school. When he was 14 he was taken by his father to meet Colonel Templer, Superintendent of the Balloon Factory, and was taken on as the very first apprentice on September 28th 1896. He earn't 3/- a week. He worked with Colonel Cody when he was developing his man-elevating kites and the powered aircraft in which he made his first flight.

Percy became a fitter and turner in 1902 and by 1917 was shop superintendent. He had passed his tests as a staff sergeant mechanic in 1910 but was refused permission to leave his work at the R.A.E., again when he tried to join the Royal Flying Corps during the war. But he served

12 years in the territorials, reaching the rank of sergeant and later served as regimental sergeant major to the Hampshire Cadets.

He retired after 54 years service and died aged 91 in 1973. Regrettably I never met him because his brother, my grandfather Albert Grosson, moved to Bristol to work in the foundry of Bristol Aeroplane factory, so I was born in Bristol and didn't know my Aldershot relatives.

Bob CRUIKSHANKS 'Stringfella'

Brick No. 1001 in Square 51



As an engineer and long serving member of the Royal Air Force I have a great respect for one of our pioneering aviators, S. F. Cody. This respect and admiration became more pertinent through my interest and hobby with kites and kite flying for which S. F. Cody was well renowned and in particularly his Cody War Kites used during World War One.

A G (Fred) CRUMPLIN

Brick No. 297 in Square 30



During 1964 I was employed as a Licensed Aircraft Engineer with B E A and upon the introduction of the Trident aircraft, became involved in the maintenance and overhaul of the Smiths Autoland System. It was during this time that along with other members of the Avionics Department I worked alongside members of the RAE, mainly at Bedford. This resulted, as I am sure you know, in the Trident becoming the first ever aircraft to achieve Full Blind Autoland and being awarded Cat III landing facility.

I finished my career as Senior Avionic Workshop Manager with British Airways.

Peter DEADMAN

Brick No. 655 in Square 19



1941-43 Junior Technical School at Guildford.

1943 Joined the RAE as a Junior Assistant SO awaiting the entrance examination to gain an apprenticeship. Assigned to Structures Dept working on Materials testing.

Transferred to Bramshaw outpost working with VG Recorders by preparing photographs from stylus scribed smoked glass plates taken from operational aircraft. (The technology before the electronic age).

The highlight, as a young lad, of accompanying a visit to Biggin Hill aerodrome to collect slides from Spitfires.

1943-48 RAE Apprenticeship. Basic training plus periods assigned to various RAE Departments and the Technical School.

A well-remembered occasion was the visit of Sir Stafford Cripps to open the RAE Tech College and demonstrating equipment in the Metrology Lab.

Finishing after five years with qualifications of HNC Mech Eng. HNC Prod Eng plus the Final C&G Full Tech Cert.

Joined the IMechE and IProdE as a Student Member transferring later to become CEng and eventually to the Inst. Engineering & Technology.

1949-51 On completion of my apprenticeship moved to Scunthorpe for employment at the Appleby Frodingham steel works.

1951-52 Returned to Farnborough (Family health problems) Employed RAE Instruments Drawing Office.

1952-66 Appointed to the Lecturing Staff of the RAE Technical College to become one of a few Ex apprentices to be employed at the RAE College teaching Drawing, Mechanical and Production engineering subjects.

1966-85 Moved to Bristol Technical College, Bristol Polytechnic, University WE Bristol

1985 Retired.

Herbert, Vera & Eric DEAN

Brick No. 664 in Square 11



RAE 1914-1979

On completing his apprenticeship with Armfield of Ringwood, Hampshire, Herbert went to Davy Paxman of Colchester. On the outbreak of war, in October 1914, he was directed to work as a turner in 'R' department of the RAE. In 1924 Herbert was transferred across to the Main Machine Shop. He remained at RAE throughout his working life, most of which as a turner. He became very competent in his work; so much so that he was considered far too valuable as a craftsman to be offered promotion to an administrative post as foreman. He was the doyen of the Machine Shop and among some seventeen lathes in the workshop, he was privileged to have operated the best and most sophisticated of these machines. In 1943, through being handicapped with arthritis, he became an inspector of engineering components where he acquired an expertise in the theory and design of gear wheels. He was awarded the Imperial Service Medal on his retirement in 1957.

His daughter, Vera, was directed to RAE during the war years (WW2) and worked in the Print Department. Eric, Herbert's son, was recruited as an Engineering Apprentice of 1935 entry and on completion of his training was offered a post as an engineer. He remained at RAE for his complete working life, retiring in 1979. Herbert's younger daughter, Dora, married Geoffrey Cooper - they are featured on another Cody brick.

Tony & Rick DEAN

Brick No. 1058 in Square 53



During Farnborough Airshow 2016, I was employed on behalf of Rushmoor Borough Council to patrol the Farnborough Road engaged in Street Cleansing/Litter picking etc.

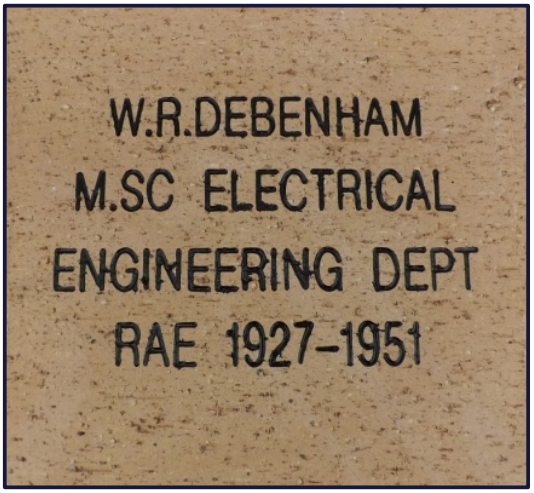
Normally I drive along the road but walking up and down gave me a good opportunity to take in the views and appreciate the area more. I was certainly impressed by the statue of S.F Cody, but more importantly I noticed the "Bricks" at the base of the monument. After reading a few, I was inspired to donate a brick on behalf of two of my elder brothers Tony and Richard (Rick).

Tony was ex Army Air Corp who died in a Helicopter crash in Oman in 2006, and Rick died of Cancer in 2011. Therefore 2016 marked 10 years and 5 years Respectively. It seemed right for me to have a small reminder of two wonderful people who were very important in my life when growing up. Both brothers are buried up north in Yorkshire where my parents live, and my last brother lives in Glasgow, so I thought it would be nice to have a small Tribute closer to home. Family and friends are proud.

James Dean

William Richard DEBENHAM

Brick No. 710 in Square 34



One of the two bricks we have purchased is in memory of my father, William Richard Debenham, known as Dick. He arrived at the RAE somewhere about 1928, having completed his training and done external degrees in Norwich. He joined what was latterly known as the Electrical Engineering Department, though his main speciality was Ignition, which was in the original title. He worked under Dr. Bairstow.

I have details of the eleven patents he submitted which were approved. The names of other people appear but on some only his name appears. His main speciality appears to have been in the design and improvement of sparking plugs and many carry the title “Improvements in and relating to electrical ignition systems.” They are all dated between 1929 and 1953.

I have a letter dated 14th December 1944; it is from Bernard Hopps, the managing director of Lodge Plugs in Rugby. He sent my father a copy of a report made by President Roosevelt to Congress. I quote the two significant parts.

“The British developed a new type airplane spark plug. It has a life from four to five times longer than the standard aeroplane spark plug.”

“Since early in 1943 virtually every United States Flying Fortress has taken off from British bases with these plugs in each of its four engines. It would be impossible to estimate how many thousand United States bomber crews may since then have owed their lives to these spark plugs, but the performance record of the plugs speaks for itself.”

The article quoted was in The Times of 25th November 1944 and it seems to me all of us have since benefitted from the improvements when driving.

Unfortunately my father became very ill and died in 1953 aged 51. The other brick records his family still in Farnborough because he came here. I did not follow his lead, but did serve terms as Chairman of Farnborough UDC and Mayor of Rushmoor. However, our children became more involved. Our daughter Anne married a young scientist from Burnley working in Farnborough and they moved to Fareham to join the Government staff there. David is a well-placed IT specialist who has worked for government departments all over the South and London. We hope that our three grandchildren Alexia, Hayden and Harry will be aware of what their great-grandfather and all who worked for RAE did to ensure that we managed to win such a terrible war.

Derek DOBNEY

Brick No. 589 in Square 35



I think this is a wonderful tribute to all those connected with the aviation industry here at Farnborough.

I have bought this brick in memory of my husband Derek Dobney who passed away in 2007.

He worked at the RAE for over 40 years. He started out at the age of 17 as an Assistant Scientific Officer working in the Low Speed Wind Tunnels here and at Bedford RAE. He then became Senior Test Controller at the 5mt Wind Tunnel working closely with Boeing and Airbus and laying the foundation for the current successful business arrangement they have with Boeing which keeps the 5mt Wind Tunnel fully operational and viable to this day.

After his retirement he worked at the Fast Museum for many years, until his untimely passing. I think Maurice Shakespeare whom my husband knew very well is also is involved with the museum!

I know you only wanted a few words but I thought you would liked to now just how much my husbands life work was here at the RAE.

Bryan & Gillian DOUGHTY

Brick No. 383 in Square 13



The day the French plane came down on the Black Sheds my husband was helping Laurie Hadler from Radio Dept drawing office bring back his boat from the coast. They had the only mobile crane in Farnborough so it was commandeered to lift the French plane off. My neighbour Trevor Davies used to service the Zlins flown by The British Aerobatic team and was in the control tower as the French plane was flying, he said you cannot fly a plane like that and sure enough next minute it had crashed killing if I remember rightly 2 people in The Black Sheds and the pilot. I was wondering why my husband was so late especially as he was type 1 diabetic from childhood. Trevor's son Alan got his Silver C for gliding on his 16th birthday. My husband was a fonder member of the RAE gliding club and I used to lunch with Anne Burns the women's gliding champion. I have so many connections with these people including Beryl Roper of BFUW. I shared an office with the step grandson of Samuel Cody (Cody's tree) and I used to leave my bike at his brother's house near Ash vale station when I went to NPL to train on the computer there, parts of which are now in the Science Museum. Original idea of this was by Alan Turing. As I said at the time the speaker at the Fast Museum who said the Comet disaster put RAE on the map was talking nonsense, it had been on the map years before that with The Air Shows and many recent BBC documentaries has said so including one with Norman Tebbit as a pilot. When Britain Ruled The Skies.

Peter R DOWNS

Brick No. 557 in Square 12



My association with Farnborough and Aviation

I started at RAE Farnborough on the 14th September 1962 as a Student 'O' level apprentice and stayed in the Apprentices Hostel as my parents lived in Norfolk. My main reason for the choice was the Farnborough Air show and a close proximity to aeroplanes, although I think my Father was keen on me being in engineering. On completion of my apprenticeship in 1967, I became a Technical Assistant at Farnborough working in several Departments including Structures and Workshops.

In 1970 I left Farnborough for Rolls Royce Bristol, working for the Ministry in the RTOs office on a variety of projects including the Olympus Concorde engines, Thor and Odin ramjet engines for Bloodhound and Sea Dart missiles as well as the Pegasus engine for Harrier.

I returned to Farnborough in 1974 working in the Escape Section in Engineering Physics Department. This covered R&D into ejection seats and my first real involvement in trials organisation, especially with rocket powered sleds at Pendine in South Wales. Following promotion in 1978, I moved to a job at RAE Bedford and Cardington which ranged from aircraft catapults and arrestor gear to being the Design Authority for hydrogen inflated kite balloons and finished with running the Parachute Test Unit. In 1984, with the closure of RAE Cardington I moved back to Farnborough for my final stay and was in the Parachute Section, in Flight Systems Department based in Q153 bldg.

For the last 25 years or so of my association with Farnborough, I retained an interest in parachutes but with the reductions in funding and staff, especially with the changes from RAE to DRA, DERA and finally to QinetiQ, added escape systems, aircrew clothing and anthropometry, aircrew helmets.

So in summary, the brick is some small recognition of the wonderful variety of jobs I had within the aviation and Farnborough areas which was made even better by working with like minded people.

Peter DRAKE

Brick No. 340 in Square 38



The first five years of my life were spent in close proximity to North Weald aerodrome. Too close as 1940 was to prove. Prior to joining the RAF my father included Edward (Teddy) Donaldson as one of his many friends. From an early age I was steeped in aviation and the headmaster of the last school I attended had been an airship captain. Unfortunately outbreaks of ill health precluded me from participating in the aviation world however I attended Farnborough air shows in the ‘50s and always maintained an interest.

Move forward to the year 1974 I attended the Farnborough air show accompanied by my aviation minded wife who happened to be eight months pregnant with our son, Nigel, who would have heard the mighty roar of Concorde’s engines doing a touch and go. From a very early age our son showed a propensity towards aviation especially as he was brought up near RAF Cottesmore with his sister, Alison, who whilst not aviation minded is very keen on motorcycles.

In 2001 after obtaining a Physics Degree at University, Nigel joined British Airways as a short haul First Officer and is now an A380 pilot.



Steven DREW

Brick No. 598 in Square 35



Shortly after Steven was born he was admitted to Epsom Hospital in Epsom Surrey with a condition called Pyloric Stenosis, a condition where feed is rejected by the stomach. He was put in a wooden seat and placed at different angles to see if they could keep the feeds down. His condition was critical and 50 years ago this condition was not known about. By a sheer chance I mentioned to an Asian Consultant that I had had the same problem when I was born. He followed it up and operated.

Steven never looked back and during his growing up years was a child that anybody would have been proud to have called their Son. For instance while out shopping with his Mum if he saw a toy car he liked if it was explained my Wife couldn't afford it there would be no tantrums her word was accepted. We lived on Box Hill and we went to his favourite place, an area called Donkey Green. We kicked a football around, he drove me mad because he would kick the ball all over the place. He had no sense of direction.

At junior school he learnt to play the guitar and we suddenly found out he could pick up virtually any instrument and within minutes play it. In his 20s and 30s he formed his own 4 piece group and toured the world entertaining on cruise ships. On the breaks between trips he restored a RF Green Line bus. He knocked out all the dents, hand painted it and refitted out the interior including all the old adverts with the help of Fullwell Bus Garage He then attended Air Shows ferrying members of the public to and from the shows. He also bought an electric organ which him and a mate ferried around Kingston and the London main stations playing for his favourite charity NSPCC and also Great Ormond Street. On one occasion he visited us and showed us his hands which were all swollen. The day before he had done a 24 hour marathon with the organ and his mate singing at Kingston Market Place. He also had a booking at Wentworth Golf Club and during his warm up the compare came to see him and asked him what music he played and he said 88 tunes and the compare said O.K you play and I will come in. The compere was Bruce Forsyth. All this and he couldn't read a note of music.

At Christmas him and his mate who was an ex butcher bought chickens and took them to my Mums Club, cooked them and made all the members a dinner and after gave them a sing- song. He even worried about me going to work at 4 am and he tried to set up a small removals business for me to run. A trip I will always remember was taking a piano up to the Lake District and we were climbing this very long hill, no other traffic about 5am., we heard this loud noise and the van rocked. We were buzzed by a pair of Tornado Jets.

He was 37 when he was taken ill. He was rushed to Kingston Hospital. He left us on Saturday 3rd September 1999. The Doctors told us they didn't have any idea what he caught but it was some sort of virus. He never stopped working but we hope he enjoyed himself. He loved his bus but he loved his aircraft more. I have hundreds of his aircraft photos mainly the Viscounts. I hope he likes the brick, a week before we lost him his first Niece was born so we have a reminder as if we needed it. He was 6ft 4ins, she is 5ft 10ins, at 14.

Peter DRIFFILL

Brick No. 214 in Square 39



Peter started at the RAE in1968 as one of the numerous ASO in Aero department assisting in the running and collating of the results in the 8x6 Transonic tunnel. Within a couple of years he had moved into Weapons department as an Observer mainly flying in a Shackleton and Canberra of weapons flight.

After a couple of years flying he moved into development of carriage and release of stores, his first boss and mentor in this sector was Cyril Newell (I think) who it was rumoured was the model for Nevil Shute's Mr Honey, although I'm sure that there are others also with that claim though-out the RAE. Peter stayed in this work for many years acquiring a great deal of knowledge about all the RAF's front line aircraft from Phantoms to Typhoon. On one occasion while investigating a problem with a Phantom he was delighted to be referred to by an RAF Officer, as the 'Boffin from Farnborough'.

A lot of the work was investigating the air flow under aircraft and Peter employed a collection of instrumented stores, basically a practise bomb containing a load balance and a method of recording the loads on the bomb. One in-depth investigation became a paper given at a couple of conferences. As part of the open day celebrating the opening of a new computer building, Peter organised a demonstration of the dropping of a bomb from a Buccaneer inside 'A' shed, everyone including Prince Michael of Kent and the RAE Director were impressed.

Peter's other connection with the Transonic tunnel was sadly as the last person to have work done using the tunnel before it was decommissioned.

A L DUDLEY

Brick No. 707 in Square 26



A brief history of my time in the RAE

Joined RAE. As an apprentice on the 13th September 1963 (Friday!) after 1st year of basic training in the Trog Shop I was allocated to E.A.S.D. 32 Department., aircraft and trained as an aircraft fitter under the wings of Reg Weeding and Doug Beckford and various APPO Masters. Finished my apprenticeship in 1968 and became a Craftsman 1 aircraft fitter. In 1973 transferred to the Helicopter flight after a few years. I became a charge hand and an apprentice master and remained on Helicopters until 1994 where I was made surplus to Requirements. In 1997 joined British Airways where I became a Senior Technician until I retired in 2012.

Clyde DUNKLING

Brick No. 238 in Square 6



I was involved with Aircraft in one way and another for some thirty years, the reason being the I was employed as a Aircraft Marshaller by British Airport Authority at Heathrow Airport. We worked with Air Traffic Control, leading aircraft, contractors, tugs etc, around manoeuvring area, especially in bad weather, ie fog and snow. I also had the unbelievable chance on two occasion's to visit the A.A.I.B. at the R.A.E. as it's known, what an eye opener, no wonder they are regarded as the No. 1 in the World sorting out accidents.

Arthur EDWARDS

Brick No. 1011 in Square 51



(b 1894-d 1982) RAE 1911-1962

In 1911, aged 17, Arthur signed on at the Aircraft Factory as a Trade Lad, after being in dead end jobs for the few years after leaving school. At the Aircraft Factory he eventually went into the Machine Shop where he spent the next 12 years making a variety of parts for airships and aircraft engines - this included the gun interrupter for the SE5.

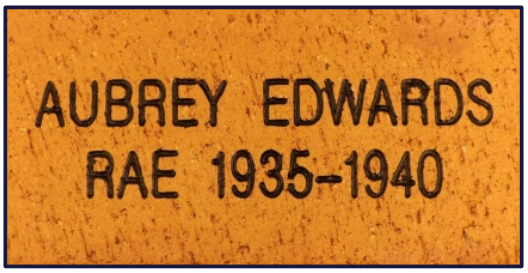
When Cody fatally crashed in 1913, Arthur and his friends rushed out in their lunch break to see the remains of the aircraft. During the First World War they were discouraged from enlisting and to avoid the criticism heaped on men not in uniform, they were given a special Royal Aircraft Factory Badge to wear. (We still have the badge in the family).

After his time in the Machine Shop he worked as an Instrument Maker for the next 13 years and in 1936 he joined the Armament Department and was promoted to the Staff. He became involved in bomb dropping trials, measuring blast effects and early experiments with depth charges and mines.

After WWII he was responsible for returning war time ranges to civilian use. He finally retired from the RAE, as a Senior Experimental Officer, in 1962 after 51 years service.

Aubrey EDWARDS

Brick No. 1013 in Square 51



(b 1920-d 1942) RAE 1935-1940

Aubrey was Arthur Edwards eldest son. After leaving Farnborough Secondary School in 1935, he started an Engineering Apprenticeship at the RAE. He was apprentice of the year in 1939.

At the outbreak of the war in 1939 he volunteered for the RAF but his call up was delayed until the completion of his apprenticeship in 1940, having gained his HND.

After training in the UK and Canada, he became a bomber pilot in 405 Squadron, flying Wellington Bombers and survived for a five month tour of duty, before being shot down in April 1942 and crashing into the North Sea.

His body was later recovered from the sea and the family were able to attend his full military funeral in Yorkshire.

Marjorie EDWARDS

Brick No. 1012 in Square 51



(b 1927) RAE 1944-1964

(Daughter of Arthur Edwards)

In 1944 after leaving school at 16, I applied to become a Laboratory Assistant at the RAE. I joined the Aerial Photography Department. I then learned to develop and print film taken with the F24 aerial camera.

The camera was fitted into the floor of a Lancaster Bomber, and took pictures over a designated area of the land. They could later be printed and joined accurately together to map the ground. I managed several trips in Lancaster NX 636 over the course of the next few years.

After two breaks - at the Blind Landing Experimental Unit at Martlesham and the Royal Ordnance Factory in Nottingham, I came back to Farnborough and joined the Printing Department at the RAE as a Principal Photographer in 1962.

Colour printing was then in its infancy and a matter of trial and error. So when it was decided, in June 1963, to take a colour photograph of King Baudouin of Belgium during his 21/2 hour visit, and present it to him on his departure – panic ensued!

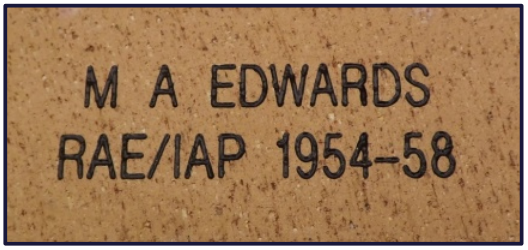
After being given the negative, a frantic hour trying different colour filters on the enlarger and small strips of paper, a reasonable picture emerged – just in time!

The result can be seen (in black and white) on the cover of the RAE News – June 1963 (No. 6).

I married Bernard Hollaway in 1963 and resigned from the RAE in 1964 to bring up my family.

Merlin HAY (nee EDWARDS)

Brick No. 801 in Square 2



My son gave me a brick in your wall for Christmas & he has asked me to write you a brief history of my years at the RAE so here it is. I don't know if this is OK. If you wish me to make any changes, please let me know.

At 16 I joined the RAE as a scientific assistant in September 1954, straight from school. For the first three months I attended the RAE Technical College beside North Gate. believe it had once been a nunnery & the old chapel was used for examinations - and tea breaks! (I remember gazing at the blue ceiling with gold stars painted on it while pondering answers to exam questions.) We worked on A level Physics, Pure Maths, Applied Maths & Chemistry as well as receiving instruction in Technical Drawing, Lab. technique, Workshop Practice - mainly learning how to accurately file straight edges & French curves in Perspex &, at the end, how to drill & tap holes in metal - graph drawing & using a Marchant calculator, which was powered by winding a handle & must have been a museum piece even then. We also had a lesson called Liberal Studies - a bit of English grammar, bit of politics, bit of English literature. At the end of the three months full time college we were each interviewed by the head, Mr. Pegg, as to where we would like to work in the RAE & eventually told to which department to report. My class at college was roughly half & half males & females, half & half local people & those from farther away who normally lived in the Grange Hostel, run in much the same way as forces accommodation, I believe. As my home was in Somerset I lived in the hostel, which was fun.

I was sent to Controls Division in IAP Department (Instrument & Photographic) which dealt with auto pilot & auto stabiliser systems. I joined on my 17th birthday, just before Christmas 1954. In February 1955, the Rolls Royce Flying Bedstead arrived at Farnborough, & my boss was developing the auto stabiliser for it so I worked on that. As the Bedstead was really a couple of engines supported by scaffolding on top of which the pilot sat, we had to clamber around on that to get at our equipment which was behind his seat. Then we had to be present when it eventually flew, which actually meant that it rose a few feet into the air & trundled forward & backwards along a bit of spare runway. It eventually went away to RAE Bedford for further trials with Aero Department. I think it might have flown on wires there after one crashed, killing the pilot, I believe. Of course, it evolved into the Harrier.

After this I worked on stabiliser equipment for the hunter/killer helicopters for the Navy. I remember we sometimes flew to Staines reservoir over which we dangled a Sonor buoy into the water & hovered over it. Other times we flew up & down the nearby railway line, sometimes further afield, depending on what we were testing. I had been keen to be able to fly as an observer so was lucky to be in a section where that was possible. Most of my flying at the RAE was done in the Wessex Whirlwind. Much of the equipment was made from scratch & although we would normally have had a mechanic to do the basic work of making chassis, framework, etc for us, our mechanic happened to die the night after my first day in the lab & we were without one for a long time, which meant we made everything ourselves. I enjoyed this but I also made some very delicate items which was fascinating.

In the meantime, after our three months full time college, we continued to go one & a half days a week to continue with our four A level subjects, which should have been taken after two years, but due to some poor results in the final exams of earlier students, they changed the system at the end of that year to three years at one day per week college & only three subjects. As none of my group had gone into Chemistry department as there were no vacancies at that time, we all gave up A level Chemistry & had 2 more years of part time college.

After A level, I managed to get a place at Edinburgh University to study for a degree in Physics with the intention that I would eventually return to my old department at the RAE. I left Farnborough at the end of September, 1958. However, I met my future husband in Edinburgh so I never did return. I enjoyed my four years at the RAE very much. There was so much fascinating work done there, & it was probably the most interesting time of any to be there as it was still the days of many different aircraft manufacturers who were competing for various records - the days of famous test pilots, the Hunter, Swift, Javelin, V bombers, FD2, Comet, Britannia..... Blue Streak, the UK leader in the Space Race was there but, of course, later cancelled. There were also some strange test aircraft such as the prone pilot Meteor, the "pregnant" Hunter, the Avro 707 C, the Sperrin, with engines on top of each other, the Lancaster with a Tyne engine strung under its belly. As to the poor old Lancasters, once they had finished their jobs, they were dumped at the bottom of the airfield & used for fire practice. It seems such a shame that some of these special aircraft weren't saved. It's even more of a shame that the old RAE couldn't have been saved as a museum to show school children, the scientists & engineers of the future, just how interesting it can be to work in such a field.

Nick EGERTON

Brick No. 743 in Square 26



Brian Nicolas Egerton (Nick) - 20 February 1944 to 24 August 2013

I first met Nick at the RAE when we joined as first year Craft Apprentices on 15 September 1960. Nick lived at home at Burpham, Nr Guildford, and preferred to cycle daily to Farnborough, which was some 20 miles each way. He did this for his first year until at age 17 he passed his driving test and purchased a venerable Austin 7. Nick's brother Graham and his parents, Mum Ki and Dad Geoff, were very supportive and welcoming during my not infrequent visits. Nick's background was very practical, with application of mechanical engineering encouraged by his Dad. Geoff was a watch and clock repairer with a workshop at the bottom of their garden. The family garage was also well-equipped with a centre lathe and other machine tools that Nick was already familiar with before starting at Farnborough.

The first year RAE training took place in P68 Building, a specially equipped 1st year training centre, which comprised a full range of engineering disciplines each with dedicated

instructors. We rotated between the various sections for several weeks at a time covering Bench Fitting, Centre Lathe Turning, Milling and Electric/Gas Welding, including Heat Treatment.

NOTE: This 1960 5 year apprentice training scheme is described in detail under story entitled "1960 Apprentice Intake" which is commemorated by Brick No. 351 in Square 24.

Nick, along with all other Mechanical Craft apprentices, spent one day per week plus evenings to study City and Guilds Machine Shop Engineering No.63. For the intermediate examination at the end of his second year, Nick gained a first class pass which enabled him to switch courses and study for a Higher National Diploma (Mechanical) for the rest of his apprenticeship. As a consequence of some very hard work with several evening classes over the remaining 3 years of his Craft apprenticeship, Nick completed his time with an HND. He worked initially in Structures Dept. and spent some time over in X32 Building (near to the Concorde Structural Test airframe) working on fatigue testing of light alloy materials.

In 1968, Nick looked for something that would test his practical hands-on engineering skills, as well as satisfying his strong sense of faith. Nick joined the missionary society USPG (United Society for the Propagation of the Gospel) who ran St Francis hospital in the Eastern Province of Zambia. Nick was the engineer responsible for electricity generators, water supply (bore holes), vehicles, and a monthly 300 mile trip for supplies, amidst many other things. Here Nick's practical skills were much in demand and enormously well appreciated as part of a team looking after the welfare of the local population in support of the only hospital covering a very large area. One incident relayed to the undersigned was a need to straighten a vehicle drive shaft, following a collision, achieved with local muscle using the fork of a tree!



Missionary Hospital Engineer Nick Egerton on duty with a large rural hospital in the Eastern Province of Zambia, Africa c1975.

It was during this time that he met Marion, a VSO Nurse at St Francis hospital, who came from Thames Ditton, and they were married while on UK leave in 1971. Nick and Marion then returned to Zambia for 3 more tours ending in 1978.

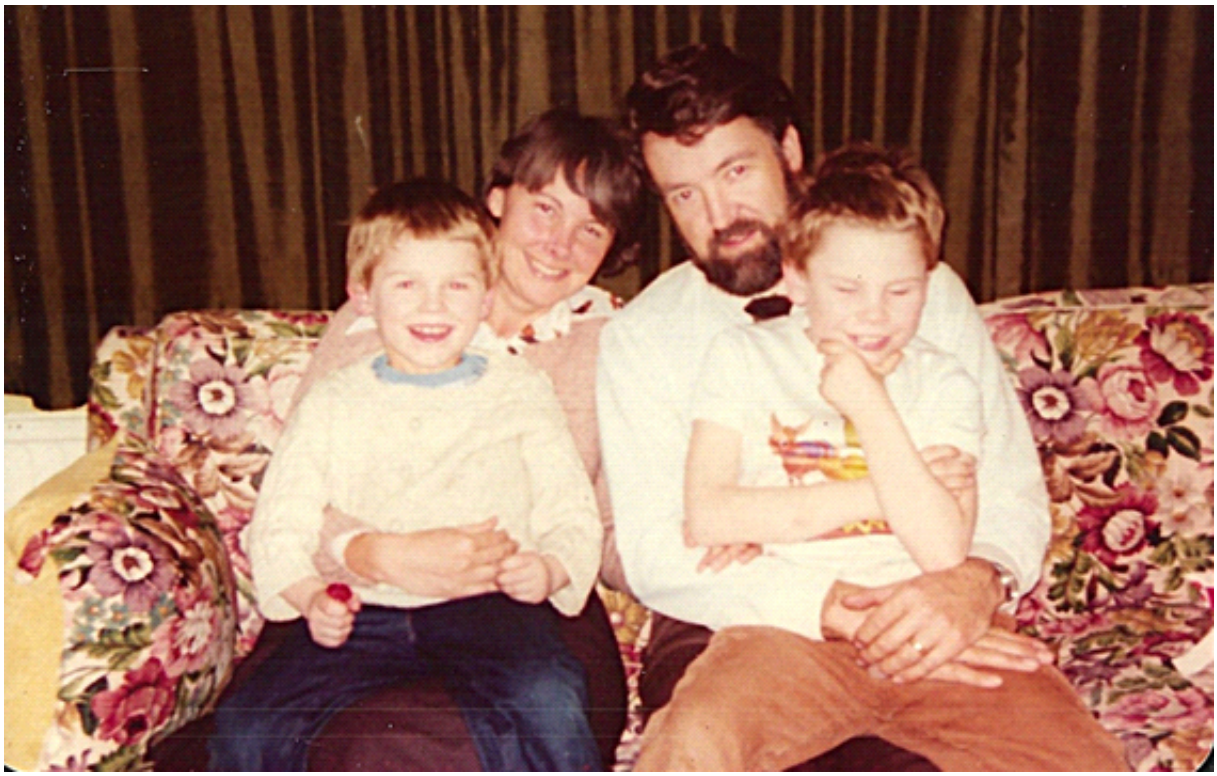
Nick and Marion settled in Fishbourne, near Chichester, where he became a Hospital Engineer at St Richards Hospital where, although there was a fair bit of paperwork, Nick was never happier than when he got out and was doing practical work. He was on call some nights and weekends for emergencies fire alarms, people stuck in lifts etc).

Having settled in Fishbourne, Nick was involved with the church and became church warden for a number of years. After retirement in 2004 he did a 2 year course to become a lay reader, which gave him added responsibilities, like preaching sometimes. Nick always enjoyed the countryside and wildlife and when he retired he became a volunteer Warden in the South Downs National Park. He went out every Wednesday with a group of like-minded people, mending stiles, clearing scrub and generally maintaining the habitat for wildlife. He enjoyed this very much.

Nick and Marion adopted two young boys who were brothers and settled into a happy family life in Fishbourne.

Nick became ill with mantel cell lymphoma in 2011. After chemotherapy he was in remission for about 10 months, but when it came back there was little that could be done. He disliked to admit that he was ill and kept going as long as he could. In June 2013, Nick and Marion enjoyed a holiday in Rhodes. Nick passed away on 24th August 2013.

Commemoration by Maurice Shakespeare, FAST
(Fellow 1960 intake RAE apprentice)
With thanks to Marion Egerton for much additional information
31 March 2025



Marion and Nick with brothers Terry and Jason aged 7 & 9 years old.
The brothers came to Nick and Marion in 1981 and were adopted 18 months later.

A Cautionary Tale



Photo © Dick Cole

LEFT Western Area Volunteer Ranger Nick Egerton with both eyes intact thankfully – shown here with VR David Gibson cutting a National Park celebratory cake

Nick was a willing volunteer.
He went to tasks with all the gear,
And of course, he was advised
To wear protection for his eyes.
Nick said, "That's no good for me
They all steam up and I can't see!"

Every week for months and years
Nick worked hard and showed no fears.
Then while on Chapel Common sand,
A-felling gorse with saw in hand,
A branch flew back and hit his eye,
And he let out a painful cry.
He want didn't make a fuss.
He didn't let the ranger suss.

After Nick got home that night,
He had a very nasty fright.
His eye was red, the pain got worse.
It felt as if his eye would burst.

Next morning he could hardly see,
So off he went to A and E.
The doctor said, "These eyes don't match.
That cornea has a nasty scratch,
Here's some ointment; you must try
Every two hours to apply"

Nick went home to darkened room,
All his thoughts were full of gloom.
Three days of pain and little sight,
Day was looking like the night.
Darkling fears were in his mind,
Suppose his right eye should go blind.

But this dread event did not appear.
Slowly his sight began to clear.
The pain and redness went away,
Nick could now enjoy the day.

Nick is a willing volunteer.
He goes to tasks with all his gear.
Now he always does what's wise,

HE WEARS PROTECTION FOR HIS EYES.

Marion Egerton (Nick's wife)

Ed. If Health and Safety was taught like this, it would be a lot more popular (and appreciated) subject! Thanks very much indeed to Marion for this; it's the most convincing argument I have heard for using eye protection on scrub days. We now issue gloves and protective glasses or goggles at the same time that we issue safety boots and as with uniform we will replace these when necessary. If you have slipped through the net, or need replacements for any item already issued, get in touch with Anne or I at Stanmer.



Nick’s inauguration as a Lay reader in Chichester Cathedral in 2008

Derek ELDRIDGE

Brick No. 194 in Square 31



I write concerning the brick my brother & I brought for the Project. Keith & I wanted to buy this brick as a memorial to our fantastic Dad, Derek Eldridge, he enjoyed his time working in the RAE so much that we always thought it was more of a hobby than a job. He met so many interesting people and made life-long friends whilst playing with things to see if they could make them work better, faster etc - getting paid to play with things that fly - he couldn't believe his luck!

Like most people who were living in Farnborough when the RAE existed, it played a huge part in our lives. Our parents met whilst working in the RAE, dad was an aircraft electrician and mum (Grace Eldridge) worked in the canteen (as did her mum, Grace Oram, our nan). Mum used to take around the tea trolley and the joke was always that he couldn't resist her sticky buns!! Dad worked in the RAE, in A shed mostly, from when he demobbed from the RAF in

1955 until 1994 when he took early retirement because of the move to Boscombe (dad cycled everywhere & had no interest in driving so couldn't commute). And for Keith & I there were the Children's Christmas parties too!

Mum & Dad were married for over 50 years. Mum passed away last April and Dad just passed away March. So you see, the RAE was really special to us all.

Brian ELLIS

Brick No. 853 in Square 17



Joined the Royal Navy as an aviation cadet on 1st January 1949. Trained as a fighter pilot. Active service Korea 1952 HMS Ocean flying Sea Furies(802 Squadron).Ground attack and air to air combat versus Mig 15's. 1954 jet conversion followed by CFS. Instructor at RAF Valley 1954-56.

Further active service Suez HMS Albion flying Seahawks. 1957- 1961 various appointments including flight commander 831 Squadron (Electronic Warfare),flying instructor on the British Naval Air Mission to the German Navy(Schleswig) ,seafaring HMS Blackwood.

In 1962 transferred to night fighters becoming Senior Pilot 890 Squadron(Sea Vixens) 1964 Invalided from RN due to mastoid. Joined MOA in1964 as an operations officer. Early posts including NATS(ATCC planning),Aerodrome Standards(Lighting specialist) and Southern Division Heston aerodrome licensing officer. Did considerable amount of flying on these postings checking vasi's and lighting. Because of medical limitations had to resort to the gold plated PPL, ie twin rating plus full instrument rating.1972 promoted to become the Commandant Highland and Islands Airports, served during rapid build up for the exploitation of North Sea oil until 1977.

Returned to CAA London HQ as head of OPD2 responsible for policy on flight data and cockpit voice recorders, all aspects of aircraft performance and coordination of helicopter legislation. Further promotion to Deputy Director of Flight Crew Licensing followed by appointment as Director of Operational Services Overseas. On the transfer of the CAA operations activities to the Safety Regulation Group at Gatwick I was further promoted to the Senior Management Group and became responsible for a number of multi disciplinary departments including the SDAU.

I retired in 1990. In both parts of my career I had dealings with RAE Farnborough. When in 831 Squadron I made a number of visits in a Gannet heavily modified to carry a powerful radar jammer (cooling problems).During the years of my CAA activities my aerodrome lighting responsibilities brought me in close and frequent contact with Ted Calvert and Jack Spark at a time when the Vasi and Category 2 aerodrome lighting were being developed and introduced. In my later years I was in regular contact with AIB over flight recorder issues and ultimately over responses to AIB recommendations to aircraft accidents in general.

Roy ELMS

Brick No. 106 in Square 40



My Lifelong Interest In Aviation

My interest in aviation started at the age of about four years, when I visited the site of an aircraft crash. The aircraft was, I know now, an early mark of Hawker Hurricane. It had been in a scrap, and as a result it crash landed on the edge of my father's allotment, beside the railway line, at Dorking in Surrey. From that moment on I was an aviation enthusiast.

I lived through the second world war, as did anyone else of a similar age, and was old enough to have some idea of what was going on, but not old enough to be actively engaged.
At school I decided to join the R.A.F. and be a flyer. Sadly, the R.A.F. decided they could manage quite well without my involvement, but when the time came for me to do my National Service, that was where I went. I served with 50 Squadron as an aircraft instrument mechanic, on Canberra bombers. It was an experience I thoroughly enjoyed, as 1 look back on it.

After this 1 returned for a while to engineering, for which I had served an apprenticeship, but for which 1 can see now, I was not suited. I had a chance meeting with a pal from my Nat. Service days, who was in the process of building up his flying hours, to later become a B747 Captain with B.A. He said had I thought about joining the Air Traffic Control service. This is what I did and spent the next thirty three years at the Southern (later London) Air Traffic Control Centre, mostly at R.A.F West Drayton, a combined civil and military organization.

Over the course of many years, I have had several pleasant flying experiences, two of the most memorable of which were a pleasure flight in a Dragon Rapide round Heathrow Airport in the 1950s, and a flight in a Sandringham flying boat in 1976. We flew from Poole along the south coast, round the Isle of Wight, beat up Bournemouth airport, and flew back to Poole with the Schneider Trophy replica S6 flying along side. The Captain of the Sandringham was one Charles Blair, who has his name in the record books for, I believe, several accomplishments, one of which was to lead a flight of several Mustang fighters over the North pole.

After retiring from A.T.C. I was involved with the Museum of Berkshire Aviation for a time, starting the renovation of a Miles Master aircraft, which had been retrieved from Iceland, where it had been engaged in fishery protection work, until it crashed. Then I heard about the Farnborough Museum, and transferred my allegiance to that august body, where I have been lucky enough to meet a fascinating group of aviation enthusiasts.

I decided to buy a memorial brick to mark the one memorable thing I have done, (apart from marrying a woman who has been a very supportive wife, for more years than 1 care to remember), namely being a member of F.A.S.T.

Robert ‘Bob’ EVANS

Brick No. 1077 in Square 54



Robert “Bob” H. Evans, had a varied career at the RAE spanning 36 years from 1943-82. He worked in the Electrical Engineering Department on projects, that in part, related to the Vulcan bomber. He ended his time at the RAE in a leadership role in the Avionics Department studying the effects of lightning and other electro-static interference on aircraft.

Bob impacted the lives of many people while at the RAE and maintained a life-long friendship with Sylvia Grater, also an RAE alumna.

Trevor Emrys EVANS

Brick No. 693 in Square 3



My late husband Trevor Emrys Evans joined the Air force at age seventeen. Qualified as a P.T. teacher, then on to become a Parachute Instructor, in England Palestine and Canada.

He did valuable work as escaping from the V Bomber. In 1954 was awarded the AFM medal and others before.

After being pensioned from the Air force he joined the RAE Military Police until retirement.

William Henry Brereton EVANS

Brick No. 105 in Square 40



29 January 1883 – 7 August 1913



The passenger with Cody

The report in Wisden of William's death at the age of 30 described it as "a painful shock, (he) was one of the best all-round amateur cricketers of his day". The obituary, which is lengthy, goes on to extol his virtues on the field of cricket at Malvern College (1896 – 1901) and later at Oriel College, Oxford (1901 – 1905), where he won his Blue as a Freshman. He also played county cricket for Gloucestershire and Hampshire. On leaving Oxford William entered the Egyptian Civil Service and so his chances of playing first-class cricket diminished. Had he continued to do so it was considered "likely that he would have had the distinction of playing for England". An all-round sportsman, William also played football for Malvern and Oxford and won the Public School Racquet Championship in 1900. His cricketing achievements are recorded alongside those of his uncle Alfred Henry Evans, his brothers Dudley and Alfred (later to become Vice Admiral Sir Alfred Englefield Evans KBE), and his cousins John and Ralph Evans, all of whom also played for Hampshire.

William was born in South Africa, the eldest son of five children, into a family with a history in the colonial service in India and South Africa. His grandfather, William, was Deputy Surgeon General and Inspector General of hospitals in India in the mid 1800s and at a later date, we believe, a practising doctor in Tadley, Hampshire. It was at this time that he and his wife Emma moved into Fairlawn House, Tadley. William, probably known as 'Harry', had been home on leave from Sudan since June visiting his sister Dora and his Aunt, both of whom were living at Fairlawn House.



Malvern College Football Team, 1900

William H B Evans is second left in the back row. He had a distinguished career at the College, finishing as Senior Chapel Prefect (Head Boy) in his final year. A window in the College Chapel was dedicated to his memory following his death.

Photograph: Malvern College

The extensive report in The Hants and Berks Gazette of his funeral on 13 August, at St Peter's Church, Tadley, gives us a clear picture that the occasion was attended by a large number; many perhaps drawn there by curiosity, excited by the tragic event that led to his death. His body was cremated which was an unusual decision for the time, but possibly one made due to the condition of his body on impact with the ground. The casket with his ashes was placed in a grave next to that of his grandmother, Emma who had died in 1911. Revd L.P. Phelps, from William's alma mater, Oriel College, was invited to say the committal prayers. Many prominent local residents attended the funeral as the family were well known in the area; his sister Marjorie was married to Gerald Strange of Strange's Brewery, Aldermaston (Beenham). Leon Cody, the son of Samuel Franklin Cody, was also amongst the mourners. Leon had generously given up his place on that memorable morning flight to William! The large number of floral tributes included two from Khartoum: 'The Khartoum Province' and 'The Polo Club' and one from Mrs Lela Cody and family.

It would subsequently become known that William was not the only local resident to have flown with Cody on that fateful day 7 August 1913. Lieutenant Norman Keyser, 20th Hussars, of Aldermaston Manor, had driven with his friend William to the flying ground and preceded him in a flight with Cody.

Tadley and District History Society
June 2013

Wing Commander Roland John FALK OBE, AFC and Bar

Brick No. 100 in Square 40



Roly Falk (1915-1985) is well known for his spectacular displaying of the Avro Vulcan at the SBAC Farnborough air shows from 1952 including rolling it at low level in 1955.

What is less well known that he was a charter airline pilot in the 1930's (including flights for the press to the Abyssinian war and Spanish civil war), a King's Cup air racer and a test pilot for the Air Registration Board before WWII.

He then flew for the duration of WWII at the Royal Aircraft Establishment at Farnborough as Chief Test Pilot. By the end of WWII he had already flown 7 different jet aircraft including a ME262 that can still be seen today at the South African National War Museum in Johannesburg.

He flew over 350 different types of aircraft during his flying career and an account of his flying career can be found in the book "Test Pilots of A. V. Roe & Co Ltd : R J 'Roly' Falk – Avro Test Pilot" by Peter Clegg. It can be bought at the Vulcan to the Sky website.



Leslie Ambrose FANCETT

Brick No. 234 in Square 6



Leslie Ambrose Fancett arrived in Farnborough with his wife, Vivien, in 1940 to start his career at the Royal Aircraft Establishment. He spent his working life in T42/T50 department, retiring in 1976. Leslie and Vivien had five children, two of whom followed their father into the MOD:

Roger Fancett spent his student vacations at the RAE, graduating in 1961. He joined RARDE, another establishment having links with the RAE. He became professor of Aeromechanics at RMCS, Shrivenham in 1992.

Malcolm Fancett spent 25 years at Farnborough in various roles, including avionics, apprentice training and drawing office (T50) before transferring in 1988 to St Giles Court, London.

Happy days for all. We hope that our brick will not only serve as a tribute to the late Leslie Fancett but will be a source of pride and a lasting link to Farnborough for his descendants.

FARNBOROUGH GRANGE NURSERY INFANT SCHOOL

Brick No. 511 in Square 28



We here at Farnborough Grange Nursery Infant Community School felt that this was to be an important project and the children must be part of it. The children study air flight every 2 years when the air show is on and are very interested in all aspects; particularly the importance of the place where they live. To raise the money for the brick the children paid a pound to come to school for the day out of uniform. We all think the statue looks great.

FARNBOROUGH INNER WHEEL

Brick No. 684 in Square 34



The Inner Wheel Club of Farnborough, formed in 1960, was originally a service club for the wives of Rotarians. It is now open to ladies interested in its ethos as an international organisation.

Our aims are to promote friendship, encourage the ideals of personal service and foster international understanding.

As we are a Farnborough club, a number of our members past and present have had links to aviation, which is why we want to support the Cody project.

FARNBOROUGH RUFC

Brick No. 845 in Square 17



The year 2014 marks the Centenary of the Farnborough Rugby Union Football Club, which was started at the beginning of WWI when what is now Farnborough Airfield was the location of the Royal Balloon Factory and had been, in 1908, the site of Samuel Cody's first flight. Farnborough became the centre of UK aeronautical research, employing scientists, engineers, servicemen and test pilots, and from their ranks the original members of the Rugby Club were drawn. In 1918 it became the Royal Aircraft Establishment (RAE) Rugby Club.

The Club went 'open' in 1978 and changed its name to Rushmoor (Farnborough) Rugby Club, but retained the players and fixtures of the RAE, and is proud of its links to the RAE and its aviation heritage. It subsequently changed its name to its present Farnborough RUFC.

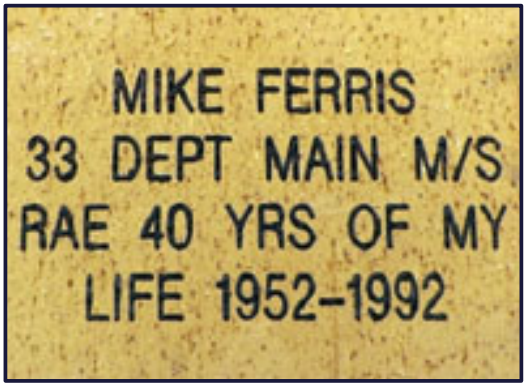
Between 1966 and 1979 the RAE Club played an annual fixture with its counterpart French Research Establishment ONERA, situated outside Paris in Meudon (which is twinned with Rushmoor). The fixture was played alternately in Farnborough and Paris, and was both a great playing and a great social highlight of the season. It also did much to boost collaboration between the two research centres on the Concorde supersonic airliner.

On the occasion of its Centenary Farnborough RUFC has purchased a brick to be laid beside the Cody Statue as a reminder of the Club's strong aviation heritage, and FAST Museum kindly provided a display of some of its artefacts in the clubhouse during the Club's Centenary weekend on 9-11 May 2014. The weekend finished on a high note, with Farnborough RUFC winning the Final of the Hampshire Plate competition at its home ground on the Centenary Saturday afternoon.

For those who would like to know more, a copy of the Club History written for the Centenary is held in the FAST Museum Library.

Mike FERRIS

Brick No. 944 in Square 8



My Mother, Mrs Ethal Annie Ferris (born 01/09/1895), known as 'Minty', was Head Tracer in 177 building: Drawing Office, with quite a few girls under her training as new Tracers. She was born in Hull and worked there as a Tracer on submarines before moving south to the R.A.E. She married Mr William George (Bill) Ferris 24/12/1932.

My father Bill ended up as a chaser in the R.A.E. at the end of his working life. His main job was Coach Painter at the Aldershot & District Traction Co. A team of three used to completely turn around, fully painted, a London coach in a week. This he did for 28 years. His story was that he retired from hard work at the "Traco" and into the R.A.E. rest home! He retired 19/05/1965.

As for myself, I was born on December 22nd, 1935, in Manor Road, Farnborough Park, Farnborough. Schooled at South Farnborough Infants and then became one of Mr Charlton's boys in Queens Road School, North Camp, Farnborough. My first job was a year working at Southern Instruments in Hawley. I started a five year apprentice ship in the R.A.E. in 1952 as one of Mr Armstrong's 100 a year apprentices, including college, which I got thrown out of by Mr Peggs as he said I did more courting in Queen Elizabeth Park than I did homework, so instead of becoming a Draftsman I was put in the Main Machine Shop (33 Dept) with Mr Nunn. I got on well with him. I became a Numerical Control M/C worker making aluminium wings and tailplanes out of blocks of 6 feet x 8 feet for the Wind Tunnel, also test pieces and castings for computers to be sent in the rockets round/to the Moon. I was the one that helped make the large map that covers the end wall of the FAST Museum, part of Salisbury Plain.

I spent two years in the R.A.F. and came out on the last day of National Service. Back to 33 Dept for another 35 years then retired in 1992 because "They" wanted to pull the old Machine Shop down. All my 40 years were very happy. Now I've done 23 years of my 40 years (?) retirement to get back all my tax money before I pop my clogs. All my days I have been in six swimming clubs on all their committees, Vice Chairman of Rushmoor Sports Advisory Council, Grade One Examiner for the Royal Lifesaving Society. My wife & I also taught hundreds & hundreds of adults (Adult Further Education) to swim at the Old Command Baths Wed/Fri evenings and Tom Kennedy took all the children. We also brough into being the Farnborough Swimming Club when the new pool was built in Farnborough. Perhaps some of your readers could remember my wife (Jan Ferris) teaching (one to one) at the Queen's Hotel and also in the pool at Lakeside, Frimley Green, for over 10 years (42 years in all).

Well you could say that we have been part of Farnborough's history, but in 1977 we moved out to Ash Vale and have lived at the other end of the road that Cody lived in Vale Road. So it can't be all bad if the great man could do it so can we.
Mike Ferris – 1952/1992

Dave FORD

Brick No. 75 in Square 36



A summary of my career from RAE to QinetiQ

On 20/2/1961 I started work, straight from school, in the Electrical Engineering Department at the RAE, Farnborough, as an 'Assistant (Scientific)'. My education however continued for a number of years under the day-release scheme at Farnborough Technical College, studying Ordinary National and Higher National Certificates in Applied Physics.

I first worked in the Generator Test House, [P1 building], undertaking research into cooling and brushwear in rotating electrical machines. I was involved in running tests in the high-altitude chambers including high-temperature cooling requirements and including investigations of alternator failure on the Vulcan. I then undertook a variety of experimental work on novel measurement systems and development of liquid cooling techniques for electrical machines.

In 1967 I transferred to Bombing and Navigation division (in Y20 building at Ball Hill), working on future aircraft navigation and control and display systems. This involved development of advanced displays and controls and variable label keyboards for the emerging Cathode Ray Tube cockpit displays. Experimental display formats for the presentation of navigation and flight management were developed and these were flight trialled in the rear cabin of the Radio department Comet 2e XV 453.

After further studies I became a Graduate of the Institute of Physics and was promoted to Assistant Experimental Officer in 1971. I was re-graded as a Scientific Officer and was involved with the evaluation of numerous display and control technologies in our new airborne laboratory in Comet 4c XC814 which was fitted out with one of the very earliest 'glass cockpit' display systems.

After promotion to Higher Scientific Officer I continued with the team to develop computer and display and recording equipment for assessment of proposed display technologies for Tornado Interdictor-Strike, Nimrod and others, most of which involved ground-based trials. This was followed by the design and construction of a Tornado Air Defence Variant rear-cockpit displays simulator.

Promoted to Senior Scientific Officer in 1985 I was responsible for creating a ground test facility in support of the Flight Systems Advanced Flight Test facility on the Buccaneer 'Nightbird' programme (Buccaneer XV344). This included the installation of major experimental avionic items on the aircraft including a full MIL-STD1553B data–bus and associated equipment, (A first for a UK fast-jet).

New data-transmission techniques were by this time advancing rapidly, including the use of fibre-optics, (A difficult technology in the harsh environment of a military aircraft). Our team developed optical hardware such as rugged fibres, couplers and connectors some of which were trialled in the department's Lynx helicopter (ZD285). High speed data transmission was also being addressed.

By this time I had taken on the role of Assistant Assignment Manager for a number of programmes. Subsequently I became Assignment Manager on an Applied Research Programme developing future strategies and international standards for service aircraft avionics. Another facet of the work was the co-ordination of an ongoing 'Roadmap' of research activities to meet the needs of future UK military avionic requirements.

Following the continued development of military optical components and standards including a number of industry bid assessments I was appointed Bid manger and eventually Assignment Manager on a major European civil avionics project - the VICTORIA programme, specifically looking at avionic design automation. These managerial responsibilities continued, until after a long, varied and interesting career at RAE/DRA/DERA/QinetiQ, I eventually took retirement at the beginning of 2003, and after a short break, became an active volunteer with FASTA.

Vera PULLEN (nee FORD)

Brick No. 139 in Square 15



I started at the R.A.E. in September 1947 as a Learner Tracer under completely the wrong impression, I thought it would be tracing maps as in geography, not engineering.

There were 10 of us in the group and Mrs. Medlicott was our trainer. We were the first group to use the old convent, which was the college for the R.A.E. - it had just been opened as a college

We had to do P.E. every morning outside with an ex army sergeant P.T.I. whilst the male students hung out of the windows whistling at our efforts. We also had to attend college and go into the workshops and my first experience was in fitting section where I had to produce internal and external calipers, filing by hand, and we had also traced the drawings we used. After a year we then became Tracers , but I am afraid not all stayed the course, those that did entered different departments and mine was S.M.E , where the head tracer Miss Hankin had her office.

My next move was to I.A.P. and then on to Instrumentation but by then I had been promoted to Drawing Office Assistant, I remained there until I left in 1957 when I married and went to Canada.

I was very happy in Instrumentation and had some very interesting work including the timing equipment for the world airspeed record which took place off the South Coast. When I returned from Canada I returned to Instrumentation on a visit and remained in contact with many of my work mates.

Aidan C FOSTER

Brick No. 291 in Square 22



As you can see our particular brick is inscribed ‘ATCSSD NAS 9020’ from the picture attached. ‘Air Traffic Control Software Systems Delivery’ is the department which my colleagues and I work in, for National Air Traffic Services (NATS). The software we deliver and develop is for the ATC computer system (National Airspace System), which when originally delivered 31 years ago was an IBM 9020 mainframe computer system. It is still underpinning the modern day ATC system today and those of my colleagues who attended Farnborough for Captain Eric Winkle Brown's lecture in May this year, have served NAS for many years.

NAS is due to retire or be replaced in 2020 by current estimates, but the old girl refuses to let the young pretenders in! So our small brick represents the current 25 strong team and others, past and present, who have maintained a 24hr watch over the system which drives all flight data in UK airspace, for all these years.

Walter Guildford James FOURACRE

Brick No. 1050 in Square 53



Sept 1906 – July 1981

Walter Fouracre joined the RAE in early December, 1940. He had trained and worked as a fitter at the Royal Marines Depot in Deal, his home and birthplace. His conversion to aero work was probably accomplished by a short training course at Southampton (Supermarines) prior to taking up his appointment.

His early work at the RAE is not known, but by the sixties he was in Inspection Department working on propeller testing. As such, he and his colleagues were responsible for perhaps the noisiest element of RAE’s testing regimes; when prop testing was under way, the sound could

be heard all across Farnborough. The test rig was an open structure outside of one of the very early RAE buildings, with the propeller and aero engine secured to scaffolding standing perhaps thirty feet in the air.

Perhaps because of the noise, the 'open-air' propeller testing was stopped, and he moved on to wind-tunnel testing, (where he briefly featured in an episode of Tomorrow's World about damage to metals due to high-speed impact with water droplets). In his later career he moved on to non-destructive testing techniques. After he retired in December 1972 with the grade 'Craftsman Inspector', he continued to provide assistance to Inspection Department for some time afterwards, and seemed to be working as hard as ever almost up to his death in 1981.

Walter spent many of his early RAE years living at the RAE Grange Hostel, at the back of the old Farnborough Grammar School and opposite what were then the RAE playing fields. He would travel home to Deal at weekends to see his family using the 'Birkenhead Express', which conveniently passed through Farnborough North station on its way from Birkenhead to Dover. In 1949 he took possession of a council house on the newly constructed Minley Estate, which was developed by the Farnborough Urban District Council primarily for RAE employees. From here he cycled to the back entrance (off Pinehurst Avenue) of what he called the Factory (a hangover from the RAE's earlier incarnation as the Royal Aircraft Factory), using the back roads around Tower Hill and Marrowbrook Lane. He did this journey twice daily, always returning home for his lunch. As an Industrial Grade, he often worked overtime, through till 6.30 pm and on Saturday mornings.

The Minley Estate catered for the massive post-war growth in RAE employment, which 'sucked-in' scientists and industrial grades from all around the country, as well as from a war-ravaged Europe. As a result, his family grew up in a cosmopolitan environment, with senior scientists (amongst whom the co-inventor of carbon-fibre, and a leading Skylark development scientist) and blue-collar workers for neighbours; and these families originated from the four-corners of the UK.

Walter was a self-effacing, shy, and kindly gentleman. He was awarded the British Imperial Service medal in January 1974 for more than 25 years service, after retirement from the Civil Service.





Above: Mr Fouracre 1965
Right:Retirement 1972

Mrs E FOWLER

Brick No. 654 in Square 19



It was on the 13th August 1940 that we pedalled our way along the A31 with its excellent view overlooking the distant landscape. In the distance we heard the sirens sounding, it was yet another air raid warning, but we were reasonably safe where we were. We could quickly dive into a nearby ditch if anything came in sight. It was then, that in the distance, we saw the small dark shapes of aircraft heading towards the ground in a shallow dive. There was the faint 'crump' 'crump' of explosions and a smoky haze rising from what we rightly judged to be Famborough Airfield (the Royal Aircraft Establishment, Famborough).

It was only years later that I learned the facts. On that day, Famborough was bombed by a flight of Junkers 88 A-1s from the KG54 squadron.

I was now getting alarmed as my mother had been working at Famborough for some months, working with a party of women concreting and extending the Famborough runway. This was the time when women were being called up to carry out work of national importance, rather than being allowed to sit at home and 'look after the kids'.

My mother had told me various stories about amusing incidents that happened while she was working at Famborough. I remember one incident when an approaching Lancaster bomber passed very low over their heads, causing them all to scatter. A little while later "a very young man" came up to the female working party and apologised for being so low on his landing approach. The 'young man' was the pilot .... I wonder if he survived the war?

Now that runway might well have been blown to bits and where was my mother? We all decided to cycle back to Aldershot. Eventually I arrived home and waited. My mother usually arrived home about five thirty, but on this day the hours ticked by and she eventually arrived home about eight o'clock that night.

Because of the bombing, the workers had been kept in their air raid shelters for several hours, while the casualties and damage to the airfield was being cleared. Then eventually, the workers were put on buses and by a long round-about route, driven back to Aldershot town.

German interest in the Royal Aircraft Establishment continued, although there was never another air raid.

German aircraft could often be seen flying around in the airfield circuit, but with British markings, for this is where captured or 'downed' German aircraft were flown and evaluated by the 'boffins'.

After the air raid on Famborough, every time the 'alert' sounded and there were enemy aircraft in the vicinity, a protective fighter cover of three aircraft in a 'V' formation would fly around in the airfield circuit (passing over our house). This consisted of a Hurricane, leading two Gloster

Gladiator biplanes, one on either side. They did see some action, as I recollect a rain of cartridge cases falling on Holly Road, from the conflict above the clouds.

We were lucky, as apart from the odd blast effects shattering a few windows, no bombs fell in the town in 1940. However there was a time when we sat rigid in our seats, listening to a screaming bomb hurtling downwards, after a lonely German aircraft had decided to jettison it's remaining bomb load over the town. The bomb landed in Weyboume (opposite the Running Stream pub), killing a horse and blowing the roof off my old ‘Uncle Herb's’ lonely cottage. He was a WW1 veteran and subsequently refused to move from the shattered building, where he lived for the rest of his life.

They were dark days in 1940, with an imminent fear of air raids and invasion. As boys we amused ourselves by collecting shrapnel, (usually from the AA shellfire). Things did not improve as the year wore on and as Christmas approached the winter seemed colder and darker than usual.

The snow fell more heavily in those days and at East End School (Aldershot) the prefects struggled into the classroom carrying a crate of milk bottles. They were the small, third of a pint bottles and it was so cold, the milk had burst open the cardboard disc tops and it stood above each bottle in a column of frothy white ice.

The crate was placed down on the floor, next to the old black tortoise stove. This old fire probably dated back to the early Victorian era, the same date as the school. The town had been swelled by the arrival of Canadian troops. They had arrived to help out the ‘Old Country’ after the disaster in France. The garrison now numbered some 22,000 troops of all allied nations.

As Christmas approached, the Canadian soldiers went out of their way to try and make our lot a little happier. They would pull up in an army lorry next to the school playground and the soldiers would throw out small gifts to the eager waiting crowd of youngsters. Sometimes it was balloons, maybe some sweets and sticks of gum if we were lucky.

Although sweets were on ration, very few of the shops ever had any! As soon as a shop received its small delivery, the word would swoop around the school like wildfire and there would be a rush to buy a few sweets while there was still a chance. The teachers and pupils did what they could to brighten up the school for the Christmas party. For days we would be pasting little coloured strips of coloured paper together into rings and joining them until finally we had produced a decoration that stretched across the classroom.

Hopefully there wouldn't be any air raids until after Christmas. When the sirens sounded, we had to leave our desks, form up into two's and with our gasmasks hanging over our shoulder, march around to the back of the school and into the underground shelters. They were dark and damp with only the odd torchlight illuminating the darkness. Sometimes the sirens sounded three or four times a day and we had to drop our pencils and pens once again and move off quickly to our underground retreat.

Finally the time arrived for the Christmas party. The decorations were hung across the school assembly room, lit by the few solitary electric lights. We all had to make the best of things and a few bottles of ‘pop’ and some homemade cakes helped to brighten things up. The school echoed to the sound of ‘Good King Wenceslas’ and other well known carols. This was followed by the Nativity play bringing the message ‘Peace on Earth’. We sat and watched, wondering if we would ever see it..... Little did we realise that many years of war still lay ahead of us, with continued air raid alarms and the arrival of the 'Doodle Bugs’ ..... if you heard the engine stop, then duck!

Omar FOWLER

Brick No. 646 in Square 19



ETPS 1959

I had finished my Fleet Air Arm service of 7½ years in January 1956 and within a few weeks I had arranged to start work at the R.A.E. in the position of an 'R & D Craftsman' in 'A Hanger'.

After a few weeks, I took advantage of the opportunity to move across to the Empire Test Pilots School which I found much more rewarding and interesting. At that time I was an engine mechanic on the Avro 707B which had been designed as a test vehicle for the Vulcan V Bomber development.

My work was varied and I serviced a number of different types of aircraft, spending some time on the aircraft dispersal working with other colleagues. This involved between flight checks and engine running tests on various aircraft.

There seemed to be little chance of advancement in my job at that time and in 1959 I began looking for other work. I later succeeded in obtaining the position of Chief Inspector in a new Plastics Company opening in Guildford.

I assisted in introducing this company into the field of aviation and as a result, sub-contract work was received for the VC10, DH Trident, BAC 111 various other aircraft and ultimately the Concorde. I stayed with this company for 25 successful years.

Robert FRAMPTON

Brick No. 338 in Square 38



RA (Bob) Frampton FRAeS RAE 1969 – 1989

Bob Frampton started work at RAE in the Flight Instruments Section under Arthur Bone and Maurice Scard in 1969. At the time, analogue air data computers were new, magnificent,

electromechanical devices scheduled for aircraft such as TSR2. Novel cockpit displays were being designed and tested for supersonic aircraft such as Concorde. In the laboratory test chambers, static atmospheric and dynamic air pressures were physically controlled to enable the development and testing of improved aircraft flight instruments and systems (eg air data computers, altimeters, Mach and airspeed indicators). Aircraft such as Gloster Meteors were used for confirmatory flight trials. Bob's experience widened when he moved to work on analogue and digital inertial navigation systems for aircraft such as Harriers, Nimrod and Tornado under Reg Milne and Sid Smith.

Advanced ceramic materials were evaluated in hydrostatic gas spin bearings for gyroscopes, giving long lives and smooth operation but soon strapped down inertial navigation systems with their laser gyroscopes became the focus of attention. Systems were built by Ferranti and BAe Systems and rigorously tested in aircraft such as Comet 4 from Farnborough and A&AEE Boscombe Down.

More dynamic testing was conducted in a Buccaneer – the bomb-bay of which provided a convenient, if hostile, installation space, although its rotating door complicated things. A Sea King helicopter was used for rotary wing system evaluation. RAE played a significant part in the development of GPS NAVSTAR and Bob, for a number of years, led the section responsible for UK integration and testing of the system with John Owen as specialist technical expert.

A BAC1-11 trials aircraft was extensively used in the GPS testing and evaluation programme including significant operationally realistic exercises with the US Joint Programme Office as part of the US Data Acquisition Board programme. Bob moved to MOD Main Building, London in 1989 to work on defence research strategy and management.

RAE had changed to the Defence Research Agency (DRA) by the time of his return to Farnborough in1993. Bob worked in both DRA and its successor, the Defence Evaluation and Research Agency (DERA) on weapons systems, unmanned vehicles and their autonomy technology. He was transferred to the Defence Science and Technology Laboratory (DSTL) on its formation to become a DSTL Fellow until his retirement in 2005.

V E (Vic) FRAMPTON

Brick No. 357 in Square 5



RAE c1930 – 1945

Victor Frampton born 1909 started work in "40 Department" pre-war around 1930. He started as a skilled carpenter but learnt many other skills. Among the many projects he worked on, he used to speak with pride at his part in making models for wind tunnel testing and the construction of the mahogany laminated blades for the wind tunnels, including the 24ft tunnel,

which survives today. The precision, uniformity and balance of the components required considerable craftsmanship – like most people who worked at RAE, his professionalism and skill were tested daily. Many of the pre and wartime projects were classified and he couldn't share these with his family but his stories included activities such as working on systems to land aircraft "wheels up" on rubber mats, as an alternative to arrester wires. Then, as always, innovation was critical. Sadly Vic died in 1983. One of his sons, Bob Frampton has also worked at RAE.

John Graham FRANCE

Brick No. 917 in Square 2



From working as an apprentice at Royal Ordnance Patricroft – being trained in Electrical Engineering – in 1960, it was a tremendous change to be transferred to the Royal Aircraft Establishment at Farnborough. I was 20, inquisitive, keen to learn and progress.

After taking up residence at the apprentices' hostel near the Queens Hotel it took but a short while before I started working for John Benjamin in Guided Weapons Department. Under the direction of George Clarke we were developing the world's first Over the Horizon (OTH) radar for ballistic missile detection. As an apprentice radio mechanic it was exciting to be building instrumentation, helping to build a prototype OTH system on Orford Ness and taking part in calibration trials. OTH is a radio system and in a mini shuffle the group transferred to Radio department in P161.

At the completion of our prototype OTH in 1965, as an ASO, I moved on to work for Freddie Stringer alongside Dr B Burgess in pursuing the propagation characteristics of the VLF radio system, OMEGA for potential aircraft use. It was a most interesting and rewarding period of work with overseas air trials to Barbados, via Iceland, the Azores and Bermuda. There were lots of spectacular sights and new experiences to enjoy.

With promotion came a move into less grand work in trying to improve the performance of the communications systems in the 1970's generation of noisy fast jets. The work culminated in my Code of Practice for the Installation of Airborne Speech Communication Systems, RSP 1976.

I worked for Jack Corkhill from 1977 investigating the performance of co-located ARC 340 radios in Gazelle helicopters. With the advent of the plan to fit the Joint Tactical Information Distribution System (JTIDS) into UK aircraft I was soon given the job of defining the electromagnetic compatibly of JTIDS with a range of civil navigation aids to the satisfaction of the CAA/NATS. This was necessary, for the UK and supported by the USA as they wished NATO to adopt the JTIDS standards. Unfortunately the ideal spectrum had for, many years, been allocated to civil aircraft aids.

For the first time I found myself managing a sizable team of 12 including four specialists from the USA. It was a major programme which lasted from 1977 to 1983 and eventually led to a successful outcome; a signed agreement in 1984 which allowed JTIDS transmissions in the UK airspace.

The management and technical aspects were a big help to my career and I was appointed head of a group carrying out a variety tasks to take JTIDS into service.

The breeze of change was blowing, Radio department had become Radio & Navigation, in 1987 I was asked to manage the Line of Sight Communications group, in 1988 the RAE became the Royal Aerospace Establishment, JTIDS entered service and I was promoted to Principal Scientist.

With the coming of the Defence Research Agency under Sir John Chisholm, rationalisation and structural change went on at a great pace. In 1993 the communications group I headed was transferred to the main site at RSRE Malvern. I moved to London then Abbey Wood in Bristol to support the Bowman project. My RAE days were over but not forgotten.

My time at RAE widened my experiences tremendously, it was stimulating and rewarding. I had the thrill of working alongside outstanding scientists, have enjoyed successes and achievements and made many friends. A truly wonderful career.

Neil FRANKLIN

Brick No. 613 in Square 27



Neil joined the Cine Section in 1965 as a projectionist working with Bert Glasspoole, they were situated in Q134 and had a good sized cinema behind their office. It was used for showing trials films, as in those days, trials were not computer animation but were recorded on film for evaluation afterwards. Also Neil used to show films for the various RAE societies, i.e. Technical Society, Sailing and Astronomical Societies and did many shows in the Assembly Hall for various visitors. He used to travel to London and show specialist films for Admiralty House. As time moved on and technology changed, video overtook film and Neil then moved

over to a more visual aides area, setting up for video conferences and when Bert retired, he joined with John Branson and his team in Q109. He was made redundant in 1995, with so many others, and it was a bit of a sad time as the RAE had changed so much.

Neil, sadly, passed away in 2008 so this engraved brick is a lasting memory of him and the place he was proud to be associated with.

Group Capt Ned FRITH

Brick No. 1037 in Square 52



Obituary from Daily Telegraph 12th April 2013

Leading RAF test pilot who flew nuclear bombers and futuristic combat aircraft.

GROUP CAPTAIN NED FRITH, who has died aged 79, was one of the RAF's foremost post-war test pilots and had important roles in the very early development of some of Britain's future combat aircraft.

In 1963 he was selected to attend the Empire Test Pilots' School (ETPS) before taking up test-flying duties at the Aeroplane and Armament Experimental Establishment at Boscombe Down, where he would spend 10 years in three separate appointments.

In between these three tours of duty, he worked in the "future aircraft" offices of the Operational Requirements Branch at the MoD and in Nato's Multirole Combat Aircraft Development and Production Management Agency (NAMMA) in Munich.

Edward David Frith was born at Grimsby on September 12 1933 and educated at the town's Wintringham Grammar School before going to the RAF College, Cranwell. He was made a senior under-officer and awarded the Philip Sassoon Memorial Trophy as best all-round cadet.

His early career was spent flying the Canberra bomber before he converted to the Vulcan. In 1958 he joined No 617 Squadron as it was re-formed with the V-bomber. Within two years he had qualified as a captain and first pilot and transferred to No 101 Squadron, part of the strategic nuclear deterrent force.

Frith graduated from ETPS in December 1963 and joined "B" Squadron, testing later models of V-bombers and the Canberra. He was also appointed the RAF's project test pilot for the TSR2, an aircraft that pushed the boundaries of technology, only to be cancelled two years later by the Labour government.



After a spell at HQ Bomber Command, Frith returned to Boscombe Down as a squadron commander testing the Nimrod and the Buccaneer. He was appointed project officer for the Multi-Role Combat Aircraft (MRCA).

In June 1973 he left for NAMMA, where he was the British representative at the planning stage of MRCA, the largest multinational aircraft development programme at that time. Three years later he returned to the MoD to staff the future RAF programme for the bomber, which became the highly successful Tornado, still the mainstay of the RAF's long-range attack capability.

He returned to Boscombe Down for a third appointment in 1978, this time as Superintendent of Test Flying and Training - effectively the RAF's chief test pilot. He continued to fly the latest aircraft, including some of the American and French High performance fighter-bombers. During his career he flew 73 different types and marks of aircraft. He was awarded an AFC in 1967 and a Bar six years later.

Frith returned to the MoD in 1981, where he was at the centre of the European Fighter Aircraft (EFA) project. This highly complex programme, involving a number of Nato partners, attracted intense ministerial interest, and Frith was often required to brief ministers and Service chiefs. In due course EFA became the Typhoon, which has served in recent conflicts and is currently re-equipping some RAF squadrons.

On his retirement from the RAF in 1988, Frith was appointed CBE. He was elected a Fellow of the Royal Aeronautical Society in 1991. Frith joined British Aerospace as director of marketing for the EFA, a role that often took him to Europe and Saudi Arabia. In 1997 he became a military aviation consultant.

A bon vivant and raconteur, Frith was popular with his colleagues. But he also had a punctilious sense of occasion. Once, on a hot, humid day in Washington, DC, he was briefing senior American officials on the EFA programme and was invited to remove his tie if it made him more comfortable. He replied: "Sir, if I remove my tie, I'll be much less comfortable than I am now."

He was a keen fell walker in the Lake District, and a fine pistol shot who won numerous awards at services championships. Ned Frith married, in 1955 (dissolved 1981), Rita Barratt, with whom he had a son and two daughters. He married secondly, in 1982, Cathy Goodwin. Both wives and his children survive him.

Group Captain Ned Frith, born September 12 1933, died February 22 2013.

FUGELMERE PROBUS CLUB

Brick No. 864 in Square 17



Fugelmere Probus Club of Fleet visited the FAST museum on 20th May 2014. A considerable number of our members have either worked at the RAE, DERA or related industries around Farnborough. Our visit was made during the 25th anniversary year the Club having been formed in 1989. Members meet at the Lismoyne Hotel on the second Monday of each month for lunch followed by a Guest Speaker. We also have a very active entertainments programme of monthly outings and events as well as an annual Spring Break holiday.

Elsie Mary FULLER

Brick No. 142 in Square 15



Elsie Mary Fuller born 24 April 1924. At the start of the Second World War Elsie started working at Vickers Armstrong Weybridge (Aircraft Factory). Her job was to install the electrical wiring in the Wellington Bombers.

Elsie Fuller joined the Royal aircraft establishment in October 1951 as an Electrician's Mate and was initially employed assisting with electrical installation and maintenance work. In 1953 she was transferred to the Main Electrical Workshop, in Q27 Building, from where she worked throughout the Establishment.

Mrs. Fuller was regraded to the Experimental Worker V in 1972 and subsequently to Experimental Worker IV a year later. She was transferred to the 5 Metre Wind Tunnel and engaged upon filing and recording of plant serviceability and safety tests, maintenance schedules and all Tunnel drawings. In 1982 Mrs. Fuller moved to the TS & M Department, following her regrading to storekeeper, where she remained until her retirement.

In addition to her official duties Mrs. Fuller gave up much of her spare some for the 34 Department Social Club and indeed was one of its founder members. She held the position of

Treasurer for many years and was renowned for providing extra and catering at the numerous club events.

Throughout her career, Mrs. Fuller's standard work and dedicated servers of the highest possible order. Mrs. Fuller retired in February 1985 having completed over 33 years diligent and faithful service to the Crown and to the Establishment.

The information reference my mother Mrs Elsie Fuller. I did not include he fact that on the 9th of April 1986

HER MAJESTY THE QUEEN AWARDED THE 'IMPERIAL SERVICE MEDAL' IN RECOGNITION OF MERITORIOUS SERVICES WHICH SHE HAD RENDERED.

The FUTERS Family

Brick No. 906 in Square 2



The history of the Futers family in Farnborough commenced with the marriage to Helen Petters of Kent by Kevin Futers of Yorkshire in 1989, both been drawn in the early 80's to Aldershot to serve with the Armed Forces Medical Services in the RAMC and QARANC.

The first family home was a married quarter in St Christopher's Road in Farnborough. Early in the marriage incompatibility with joint postings forced Kevin Futers to resign from the Army and search for local employment at Frimley Park Hospital as a casualty nurse.

In October 1990 following the invasion of Kuwait by Iraq Helen Futers was called to service in the Persian Gulf through Operation Granby which was the British contribution to the conflict called by the Americans Desert Shield. Helen Futers was based with 33 Field Hospital in Al Jubail. Following the home sectaries order Kevin Futers was called back to the reserves and sent to 205 General Hospital in Riyahd arriving on the 17th Jan 1991 the very moment the liberation of Kuwait now called Desert Storm commenced. Both continued to serve apart through the entire conflict, the only British Military medical husband and wife team in the Gulf at the same time to remain separated.

Following the end of the conflict in March 1991 Kevin & Helen Futers returned to settle in Farnborough. Helen Futers left the QA's in 1992 for the birth of the families first child Kyle at the Queen Alexandria Royal Military Hospital in Aldershot shortly followed with the birth of daughter Erin in 1995, she unusually was born in Farnborough as a unplanned and unexpected home delivery.

Following the return from the Gulf Kevin Futers joined Hampshire Constabulary as a Police Officer and continues to serve the local Community as a beat Bobby in Farnborough. Helen Futers also continues to serve the local community as a Phlebotomist at Frimley Park Hospital.

The Family remain in Farnborough to this day, both children have been educated at local schools. Kyle Futers obtained a degree with the University of Surrey and is now hoping to be accepted into the RAF. Erin Futers has successfully applied to the University of Northampton to study Occupational Therapy.

John GALLAGHER

Brick No. 280 in Square 38



John Gallagher joined RAE Farnborough in 1943 to work on airborne radios. This was a job very close to his heart due to his love of both radios and flying. During the next two years he flew as observer in Wellington Bombers and once in a Flying Fortress.

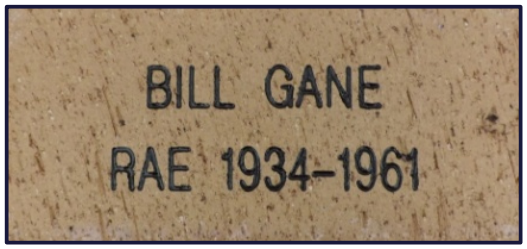
In 1947 he left Farnborough and moved to Harwell where he worked for six years.

In 1956 he moved to RRE Malvern where he worked on radar until 1964 when he left for a couple of tours in London.

He happily returned to Farnborough and the airfield in 1968 where he spent the rest of his career until he retired in 1987 working in Weapons Department. A career of forty-four years of which he was proud to start and end at Farnborough.

Bill GANE

Brick No. 604 in Square 35



1900-1961

Bill joined the Merchant Navy at the age of 14/15, and then served in the First World War.

Then came the Second World War and Bill joined the Air Force where he was a Morse Code Operator and often flew with pilots to assist with de-coding.

After their marriage in 1934, Bill and his wife Grace, moved to Farnborough to take up employment at the RAE (known then as “The Factory”). They took up an offer to rent a house in Rafborough, Keith Lucas Road, where both their children were born.

Bill was employed as a Progress Chaser and remained in the RAE until his death in 1961. He had also volunteered as a Special Constable and was called upon when the John Derry aircraft crashed on The Hill on 6 September 1952. Bill was called to help the spectators and help survivors find their relatives and friends – some of course, died horrifically. This had a huge effect on Bill and the images remained with him for the rest his life.

Les GANE

Brick No. 603 in Square 35



1937-2009

Leaving school at 15 in 1952, I was apprenticed as a fitter / machinist, with Thornycroft, a commercial vehicle company - one year pre-apprenticeship, plus five. My starting rate was 27/6d per week (£1.37p). 50p keep, 62.5p rail fare, which left 25p, with which to hit the town, so Saturday mornings I used to earn spending money at North Farm. Immediately following this, was two years National Service (1958-60), first with the Royal Hampshire Regiment, then with the, Devon & Dorset Regiment. I served most of my time in Cyprus. I enjoyed my time in the army, but it would not be the life for me.

Leaving the forces I joined the Royal Aircraft Establishment in 1960, as an Industrial Civil Servant, at 6/1d per hour (30p); whist there, my father Bill died in 1961. I left and went to Waterford, Ireland, soon after I married in 1962. I returned to the National Gas Turbine Establishment, in 1966 where I stayed until I retired in 1998. I had worked in engine test development in Cells 1 & 2.

Les worked on many of the leading engine projects of the day and would talk, when pressed, about the deafening noise when on a ‘run’ testing the very latest cutting edge technology of engines included those fitted to the MRCA (Tornado). It was hard work, squeezing into tight enclosed spaces to ensure the engine was fully prepared for the test. Les worked alternate shifts 7am – 3pm one week and 3 – 11pm the next. There was much ribbing and some rivalry between the men crews on different shifts, with many a practical joke played.

E M ‘Betty’ GARDNER (nee RYAN)

Brick No. 799 in Square 2



1931 – 2011

My sister Betty died in 2011; this is part of an extract from her autobiography when she worked at the National Gas Turbine Establishment at Pyestock.

On leaving Guildford Tech. College I had to look for a job. I went for a couple of interviews which didn’t appeal to me, then one day my father who worked at the RAE, heard on the grapevine that the National Gas Turbine Establishment at Pyestock, a mile or two from our house in Rafborough needed a shorthand typist. A meeting was arranged and I had an interview with the Personnel Officer, and she offered me the position. My friend Sybil from across the road from us and her sister Pam were already working at Pyestock in the drawing office as tracers, so now I had a job starting at 2 pounds 15 shillings for a five day week and friends too.

The NGTE was built towards the end of the war when it became obvious that the jet engine invented by Sir Frank Whittle was the inevitable replacement for the piston engine which powered all the conventional aircraft. It was a research establishment, full of scientists and engineers; a few German scientists were also invited to join the team after the end of the war because of their specialist knowledge in propulsion. When I joined the NGTE there was probably a staff of up to one hundred people, most coming in every morning by coaches as Pyestock was quite off the beaten track. I enjoyed my few years there with this young crowd of intellectuals; the atmosphere was very friendly and sociable. I worked for two scientists who specialized in the Combustion and Fuels Department. We became a good team.

At the RAE there was a Secretarial Training School where new employees in the Civil Service were sent for a day each week, this covered shorthand typing and enabled you to obtain Proficiency Certificates; this meant you would get a small increase in salary. We were also sent to Reading periodically to learn secretarial and personal assistant techniques.

After the war there was still a barrier towards women having careers in certain fields. At Pyestock other than the Personnel officer who was a university graduate, all the engineers and scientists were men. Women worked as secretaries, telephonists, tracers, receptionists, shorthand typists and canteen staff.

On BBC Radio at lunchtime 12:30 to 1:0 pm there was a programme called “Workers Playtime”. One day Workers Playtime came to the canteen at NGTE. All the young girls were seated at the front of the audience as ”Hutch” a popular crooner at that time was to be the main attraction. Simultaneously this was being broadcast throughout Britain. It was all a great laugh, “Hutch” had a pile of white hankies on the piano which he used to good effect wiping his sweating brow, and then throwing them to the audience! I don’t think much food was eaten while this was going on. I was at the NGTE until early in 1949.

Betty married Frank Gardner in 1954, and moved to Epsom, Surrey. Frank had a car repair and car rental business there, so Betty's skills came in useful. Still Betty found time to have three children. In 1988 they retired and went to live in Voisines, France. Sadly, Frank passed away in 2008.

Sir Harry GARNER

Brick No. 425 in Square 29



RAE 1916-1929

Sir Harry Garner (1891–1977) graduated from St John's College, Cambridge with a first class degree in Mathematics in 1915 when the First World War was at its height. While serving as a Lieutenant in the Army, he was recruited to join a London-based team headed by A J S Pippard addressing structural and other problems on the aircraft of the Navy. He worked with mathematician Arthur Berry on fuselage stressing and bomb trajectories until the team's London offices at Savoy Mansions were completely destroyed in a night Zeppelin raid late in 1916. They immediately moved to Farnborough, occupying the Royal Aircraft Factory's Small Drawing Office, an annex to the Main Drawing Office which was at this time still almost entirely engaged in aircraft design. Soon he was to be exposed to the dangers of full-scale work as a flight observer, as the death of brilliant Cambridge mathematician D H Pinsent in an accident to a DH4 left a vacancy in the Aerodynamics Department (BA Department). Harry Garner later recalled:

The sole test of my suitability for full-scale work was to be given a flight on a BE2b aeroplane … I was flown by Roderic Hill, then the Captain in charge of flying, on a short flight which included two or three loops, and was pronounced suitable.

Professor A R Collar, who worked with him on the Aeronautical Research Council in the 1950s, commented that Harry Garner became 'one of the remarkable band of great scientists who gave a legendary quality to the Establishment at that time.' His scientific publications during this period covered ballistics, structural problems and later aerodynamics, becoming progressively more experimental in nature.

In 1921 Harry Garner married Hilda, the daughter of the family with which he was lodging, and a librarian at the Establishment [see separate entry for his son Clifford - H C Garner FRAeS]. In 1929 they left Farnborough when he was appointed Chief Technical Officer at the Marine Aircraft Experimental Establishment in Felixstowe. He was closely associated with Britain's outright winning of the Schneider Trophy in 1931. According to Sir Ben Lockspeiser, whose own distinguished career at the RAE began in 1921, Harry Garner collaborated closely with R J Mitchell who designed the successful Supermarine aircraft, leading later to the Supermarine

Spitfire. In the fortieth Wilbur Wright Memorial Lecture, delivered to the Royal Aeronautical Society in 1966 Harry Garner observed that the outcome of the Battle of Britain would have been very different had there been no Schneider Trophy Contest.

From 1943, having supervised the removal of the Marine Aircraft Experimental Establishment from Felixstowe to a safer wartime location in the west of Scotland, Harry Garner's career moved to Whitehall where he rose to the position of Chief Scientist in the Ministry of Supply, holding the post until his retirement in 1953. Honours included a CB in 1948 and a knighthood in 1951. In retirement he attained distinction as an eminent collector and writer in the field of oriental ceramics.

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H C GARNER

Brick No. 284 in Square 22



FRAES / RAE 1971-1982

Henry Clifford Garner (1922-2010) was born in College Town, Berkshire and educated in Farnborough, Felixstowe and London, gaining admission to Westminster School as a King's Scholar in 1935. His parents were Harry and Hilda Garner [see separate entry for his father] who first met when they were both working at the Royal Aircraft Establishment in Farnborough shortly after the First World War. Like his father, he graduated from St John's College, Cambridge with a first class degree in Mathematics. His lifelong career in aerodynamics began at the National Physical Laboratory (NPL) in Teddington, Middlesex in the early years of the Second World War, directed there after graduation as his war service. His first published work in June 1944 was The Development of Turbulent Boundary Layers. In total he was responsible for over 30 publications, the last two in 1982. His 1966 work Subsonic Wind Tunnel Wall Corrections which ran to three editions is held by 75 libraries worldwide. At the NPL Clifford proved to be an effective organiser of their chess club, and a fine player. In 1967 he was elected as a Fellow of the Royal Aeronautical Society.

While working in the Aerodynamics Division of the NPL Clifford Garner began a 48-year involvement with the Engineering Sciences Data Unit (ESDU) an organisation concerned with the development of design methods for a wide range of engineering disciplines, specialising in aircraft engineering. His initial involvement was with the Transonic Aerodynamics Committee from about 1961 to 1967. Then, in May 1967 he became a member of the Aerodynamics Committee, and served until July of 2002, an unbroken period of 35 years, the last 19 years of which he was Chairman.

In 1971 Clifford Garner's work was transferred from the NPL to the Royal Aircraft Establishment and he continued to serve as a Senior Scientific Officer, later as Joint Head of the Mathematical Modelling Section of Structures Department. His research made special reference to wing theory, calculating aero-elasticity and balancing the competing forces of lift and drag in order to design aircraft with greater efficiency of flight. Towards the end of his career, Clifford was invited to give a lecture on Wind-Tunnel Interference at the Engineering Department of the University of Oxford, an honour which he accepted with pleasure.

He was a member of the RAE Symphony Orchestra (later the Farnborough Symphony Orchestra), serving as principal cello for over 25 years and as treasurer from 1973 until his death. The latter was a position which his father had filled as a founder member of the Orchestra in the 1920s. After his retirement in 1982, Clifford Garner continued to contribute to the work of ESDU, and also pursued his passions for playing chamber music, leading country rambles and gardening.

Victor Edward Walter GARRATT Bsc L.INST.P

Brick No. 450 in Square 37



Victor arrived at Pyestock - N.G.T.E in 1968 until his retirement in 1993, having previously worked at English Electric on installations of Nuclear Power Stations.

At Pyestock he worked on many projects including testing engines in the Wind Tunnel including the Concorde Engine and the RB211, helicopter blade de-icing. His last Project was Water Droplets.

His greatest love was music particularly Jazz.

In Loving Memory of Victor E. W. Garratt from his loving wife Maureen, daughter Pamela, granddaughter Rebecca and grandson Max.

Anna GIBSON (Flygirl)

Brick No. 901 in Square 3



The reason for my engraved brick! Having being born in Farnborough Cottage Hospital in 1965, from the age of 5 my father took me to every Farnborough Air Show. My mother worked at the RAE in the ‘60s, she never told me what her position was and I never asked questions; I wish I had now. I am still a massive aviation fan and attend Air Shows all over the country. I have also had the opportunity to fly in a T9 Spitfire a number of years ago. I also tried Gliding which I loved! And had an extreme top gun flight in an Extra 300 which I also loved. I have had the fantastic opportunities to fly in many other aircraft including a Tiger Moth. My son is currently learning to fly; guess he follows my passion.

Peter GILCHRIST

Brick No. 97 in Square 40



Peter Gilchrist had a wide ranging career as both a defence journalist and photographer. He was for many years the Editor of the Armed Forces Magazine, the author of numerous magazine articles and a number of books, including the Boeing 747 and 727 published by Ian Allan and the acclaimed ‘Sea Power’ volume in the Osprey Desert Storm trilogy.

His main passion was aviation and in particular British post war aircraft. He was therefore a frequent visitor to the RAE, publishing a number of articles about the work of the various departments including the Met Research Flight, Queen's flight and low level light research. In

more recent years he spent many hours at the BAE Systems Heritage Centre at Farnborough researching material for the Managing Director of Foyles. Much of this work was published in 'British Aircraft since 1945' by Foyle and Marriot.

Peter attended every Farnborough air show from 1948 to 2010 which contributed greatly to his extensive knowledge of aviation and his very large photographic library of post war aircraft. This he used extensively to illustrate both his own and other author's work.



Peter Gilchrist, Journalist & Photographer

Dr Ervine GLENNY

Brick No. 621 in Square 19



Over 33 years of government service, I am proud to recall my own researches on high temperature materials (NGTE,1947-66), and my management input as Head of Materials NGTE (1966-70), Head of Materials RAE (1973-79) and Group Head (Aircraft) RAE (1979-83).

Gerald Victor GODDARD

Brick No. 563 in Square 12



Imperial Service Medal

Gerald Goddard joined the RAE in June 1953 as an Instrument Maker, following wartime service with the Royal Air Force and six years in private industry.

During the early years of his career, Mr. Goddard was primarily concerned with instrumentation for the missile research programmes including RTV I, RTV II, Blue Streak, Black Knight and Black Arrow, His association with the early UK space programme continued when he worked on the first British Satellite instrumentation on Sun, Moon and Star Sensors, Satellite tape recorders and the Skylark tests. Each project, because of its pioneering nature, required the precise skill and craftsmanship typical of Mr. Goddard's work.

In October 1973, Mr. Goddard became a Charge hand and subsequently a Leading Charge hand in February 1974, when his skills were re-directed to instructing second year apprentices. During this time he has taught over 500 potential craftsmen and continues to pass on the benefits of his knowledge and experience to each new group of apprentices.

Mr, Goddard continues to work at the RAE, having completed over 35 years diligent and faithful service to the Crown and over 31 years to the Establishment.

Leslie A GOSDEN

Brick No. 254 in Square 7



Leslie A Gosden started his career as an apprentice brick-layer to his father who provided labour to companies contracted to government and military installations in the Surrey and Hampshire areas. Their knowledge of a wide number of sites was immense and Leslie was eventually a Clerk of Works for major contractors and eventually became an active member of the various Construction industry Institutions. Not least of his knowledge was that of Cove Common. This eventually became the airfield of the Royal Aircraft Establishment. He would tell of the way that the hill on which the Air Show Site is formed was used to practice tunnelling by the Royal Engineers during WW1, and in time one such tunnel did reveal itself under the weight of an exhibitor's stand-fitting trailer parked on 'C' row of the chalets, enough to sink one wheel. He also remembered when the Laffan's plain end of the common was used by the army for camping during manoeuvres and the Queen's (Victoria) Review was staged there and how Ball Hill got its name. The area near the high speed track is often boggy and that he attributed to the fact that the cavalry would stable their horses there and over the years the slurry built up.

He became involved with the SBAC when in 1952 the companies used caravans to meet their prospective customers and provide them with refreshments. Heavy rain had muddied the area where they had parked and Leonard Jolly, the first SBAC Show Manager looked desperately for an answer to this unforeseen hazard. Leslie was working at the RAE on a project as Clerk-of-Works and was approached by Leonard to see if he could provide a solution. Fortunately, Leslie knew a source of railway sleepers which could be placed under the caravans to stop them sinking in the mud. This initial contact was later developed and as the demands of the exhibitors grew for better facilities, Leslie was able to provide acceptable answers and he soon became a permanent contractor under his newly created company, Oaklands Enterprises Ltd. One of the first major projects was to provide sanitised toilet facilities, bearing in mind that at that stage plumbing technology was fairly post-war simple and cost was often a problem. Individual companies were prepared to pay the costs and so, by listening to their needs and suggestions, he gradually built a reputation for solving their problems. It was Leslie who suggested to SBAC that the hillside, below where the Exhibition marquee was now positioned on the old Royal Engineers Polo Ground, should be terraced to form a natural amphitheatre so that the caravan sites could be positioned on it without fear of bad weather conditions and could be easily reached by a service road at the rear. The caravan sites later became tented buildings within which the stand fitters could enclose temporary rooms for kitchens, offices and viewing areas. Leslie also provided each site with piped water and, later, plumbed mains toilets. The electrical

contractors then provided connections to the main grid. A massive underground storage unit was required to collect the sewage generated during each day of the shows. This, it was estimated, was equivalent to a substantial town and had to be pumped upward to the main sewage network on Farnborough Road at night during the quieter period of the local demands of the town.

As the site grew under the management of Tom Quinn Hall, it was Leslie and his team that drew up the development plans for approval by RAE Technical Facilities for all the proposed increased construction areas and road alterations, then he supervised the construction work and maintained the whole site both during and between each show. He provided the answer to Black and Edgington when their wooden posted Marquee was damaged in a gale in 1974 by suggesting that they use scaffold construction secured into the ground rather than the traditional wooden poles. When the rainfall off the tentage created a build-up of water close to the main runway, he devised a system of collection the run-off around the tent perimeters which was then directed into the Cove Brook at the North Western end of the Chalet Rows.

The SBAC and all the major companies exhibiting owe much to Leslie, but there were also bonuses for RAE who rarely rejected any of his proposals on their site and were happy for him to execute them to their standards where necessary.

GOSPORT AVIATION SOCIETY

Brick No. 345 in Square 38



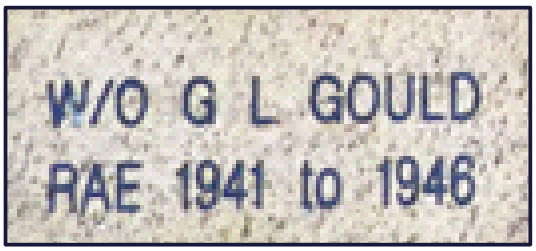
The Gosport Aviation Society was formed in 1990 by a group of local enthusiasts to research and record local flying history. Membership is open to any person interested in the history of aviation. The Society holds monthly meetings at 7.30 pm on the third Tuesday of the month at Stubbington Village Snooker Club, organises trips to places with an aviation interest, hosts talks by internationally renounced speakers and produces a monthly newsletter and regular journal on aviation matters of local and national interest.

The rich aviation heritage of the Gosport area stems from its connections with the many aeronautical organisations which have enjoyed a close association with the Borough. The Society celebrates this local aviation history by mounting public exhibitions, attending events and giving talks on aviation topics to local and national groups.

Anyone wishing to obtain further details or join the Society please contact the Society at 5, Darwen Close, Lee on the Solent, Hants. PO13 8LS.

Gordon Leslie GOULD

Brick No. 1153 in Square 59





Gordon Leslie Gould joined the RAFVR in October 1939 as an Aircraftsman. He re-mustered as an Airman u/t Wireless Operator/Air Gunner, completed his wireless training and was posted to 235 Squadron at Bircham Newton in August 1940.He had six flying hours in his logbook.

For most of the operational sorties of his tour, Gould flew with Pilot Officer HH Crawford in Blenheims on bomber-escorts, offensive sweeps over enemy-occupied territory and convoy and anti-U boat patrols. On a sweep over Denmark a Do 18 flying boat was destroyed. In March 1941 they shared in the destruction of a He111 and on another occasion they attacked some He115's but no results were seen.

Gould was posted away from 235 in November 1941 and he went to the RAE at Farnborough for experimental flying duties. Here on 13 May 1944 he had a lucky escape thanks to the Irvine parachute: W.O Gould was part of a 3 man crew of a Whitley bomber fitted with experimental spring tabs on its elevator and were engaged in flight tests to measure elevator ‘stick’ forces per ‘g’ during ‘pull outs’ following a dive. No trouble was experienced until, in a dive at 180 knots and 2,600 engine rpm, the starboard engine began to overspeed and shortly afterwards flames and glycol fluid were seen coming out of the engine.

The pilot of the Whitley was Sqn Ldr J G ‘Jimmy’ Nelson, an ex-Eagle Squadron American, whose report on the incident was brief and to the point:-

“After taking all the proper remedial actions there was no improvement and I ordered Mr Tovey and W O Gould to bale out, and they went overboard with the greatest ease and discipline. I stayed with the aircraft about 4 minutes longer in a final endeavour to put out the fire, but when I saw the engine cowling burn away I left also. After I left the aircraft wing fell off at the

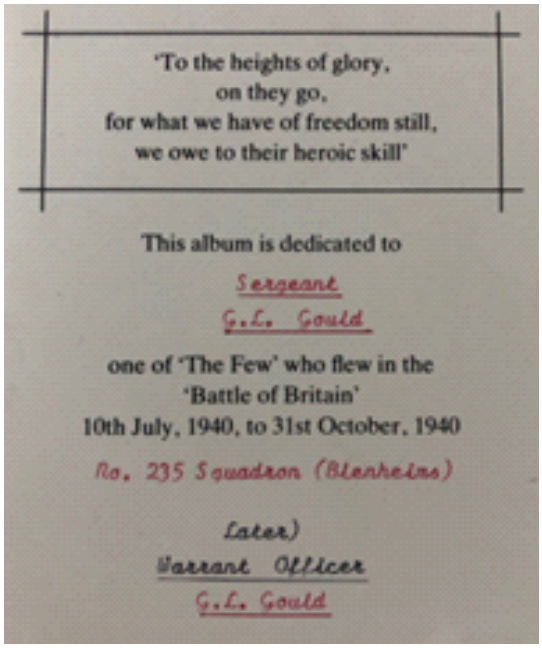
starboard engine. On landing I was picked up by the Medical Officer from Aldermaston and after making a statement to the station Intelligence Officer I returned to base."

Any airman saved by the Irvine parachute was presented with a small gold caterpillar broach which represented the silk worm that spun the parachute canopy. Hence he became a member of the Irvine 'Caterpillar Club'. These 3 crewmen are Nos. 15, 16 & 17 on the RAE Caterpillars Wallboard displayed in the FAST Museum (see below).

During the war years he flew in many different British and American aircraft and after May 1945, whilst still at RAE Farnborough, in many different German types. He was released from the RAF in 1946 as a Warrant Officer.

Gordon Leslie Gould died in 1984 aged 64 years.

Robert and Richard Gould (sons)
1 February 2025

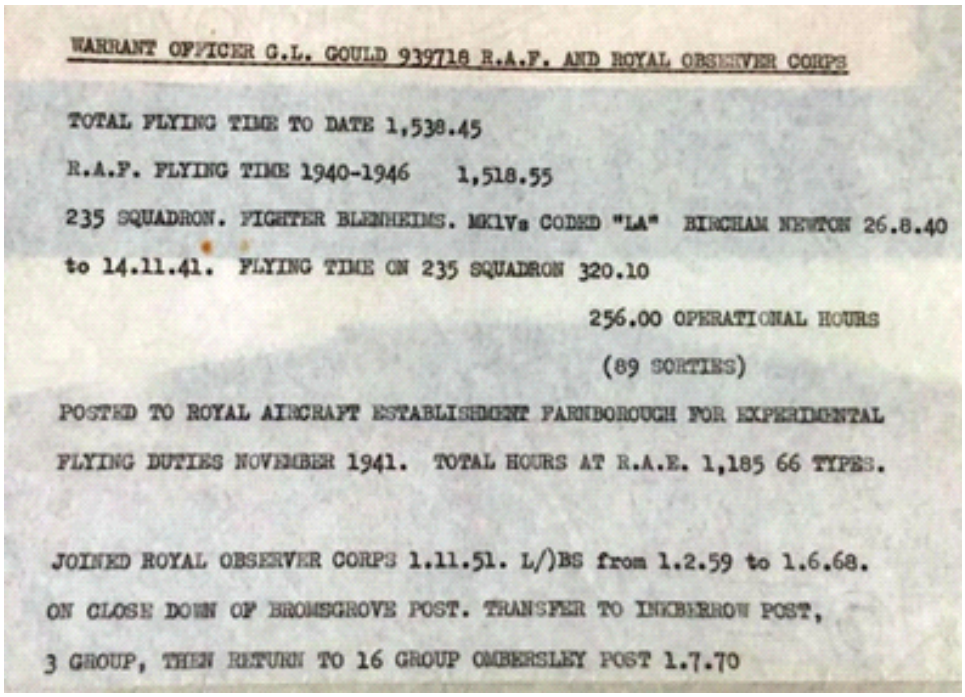

'To the heights of glory,
on they go,
for what we have of freedom still,
we owe to their heroic skill'

This album is dedicated to
Sergeant
G.L. Gould
one of 'The Few' who flew in the
'Battle of Britain'
10th July, 1940, to 31st October, 1940
No. 235 Squadron (Blenheims)

Later)
Warrant Officer
G.L. Gould

Left: RAF Battle of Britain Ops summary

Below: RAF and ROC career summary


WARRANT OFFICER G.L. GOULD 939718 R.A.F. AND ROYAL OBSERVER CORPS

TOTAL FLYING TIME TO DATE 1,538.45

R.A.F. FLYING TIME 1940-1946 1,518.55

235 SQUADRON. FIGHTER BLENHEIMS. MKIVs CODED "LA" BIRCHAM NEWTON 26.8.40 to 14.11.41. FLYING TIME ON 235 SQUADRON 320.10

256.00 OPERATIONAL HOURS

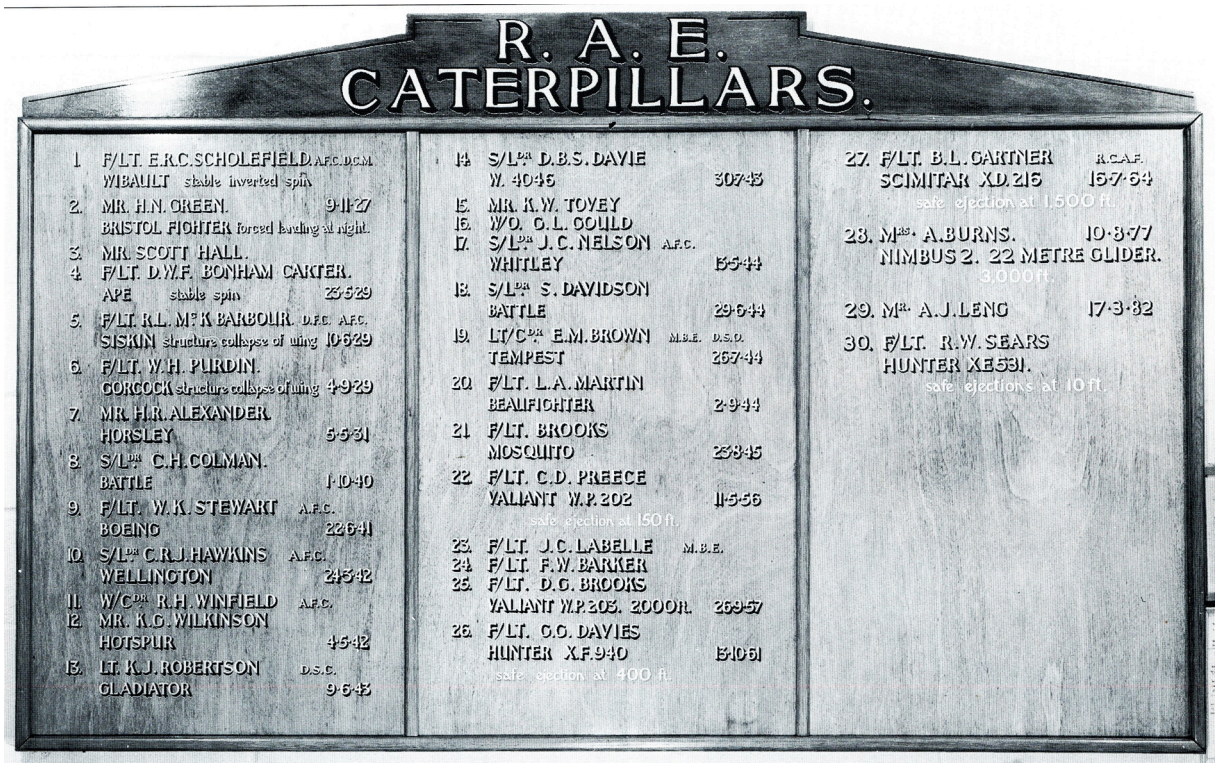
(89 SORTIES)

POSTED TO ROYAL AIRCRAFT ESTABLISHMENT FARNBOROUGH FOR EXPERIMENTAL FLYING DUTIES NOVEMBER 1941. TOTAL HOURS AT R.A.E. 1,185 66 TYPES.

JOINED ROYAL OBSERVER CORPS 1.11.51. L/)BS from 1.2.59 to 1.6.68.

ON CLOSE DOWN OF BROMSGROVE POST. TRANSFER TO INKBERROW POST,

3 GROUP, THEN RETURN TO 16 GROUP OMBERSLEY POST 1.7.70



RAE Caterpillars Honours Board

Items 15; 16 & 17 list the crew of WO Goulds Whitley aircraft that got into trouble during a flight trial and the aircraft had to be abandoned. All 3 survived thanks to the Irvine parachute and were awarded the Caterpillar broach. Item 16 WO G L Gould.

The RAE Caterpillars Honours Board records all successful Irvine parachute escapes from RAE Research aircraft whilst engaged in airborne trials.

This board was originally displayed in the RAE parachute packing room. Now displayed in the RAE Museum which is the Farnborough Air Sciences Trust (FAST).

Sylvia GRATER

Brick No. 1076 in Square 54



Sylvia (Grater) Aquilina's time in Farnborough and at the RAE (1953-56) were, as she often stated, the happiest of her life. At the RAE, Sylvia started out in the Electrical Engineering Department, where she designed & built circuits and step-by-step variable resisters, and ended qualified as a flight observer. While at the RAE, Sylvia met 2 people – Nan and Bob – who became life-long friends and integral to the fabric of her life. In 1956, Sylvia left Farnborough to work and travel around the world ultimately living and raising a family in Canada. Sylvia's final request was to be returned to Farnborough where she had found so much happiness and adventure. So, to honour her life and her years at the RAE, a commemorative brick has been laid in her memory. The RAE – forever in Sylvia's heart; forever a part of her soul.

R R (Ray) GREENWOOD

Brick No. 396 in Square 13



Armaments Department

R.R. Greenwood (Ray), joined the RAE in 1936. He was a leading Fuse Expert who invented and worked on many projects. During his time at the RAE at Farnborough he worked with Barnes Wallace on the Bouncing Bomb. He had a short period at the end of World War II as a Sqn. Ldr. In the R.A.F.V.R. for the exploitation of German technology. Later in his career he worked on both Atomic and Rocket projects as well as many others.

In 1955 Ray was promoted to S.P.S.O as Head of the Fuse Division until 1962, when again he was promoted to become Directorate of Air Armaments, at the Ministry of Aviation Headquarters, of which one of his responsibilities was Chairman of the Armaments MODS committee.

Ray is remembered by all who new him as a very gentle modest man.

Margaret and Peter GRIFFITHS

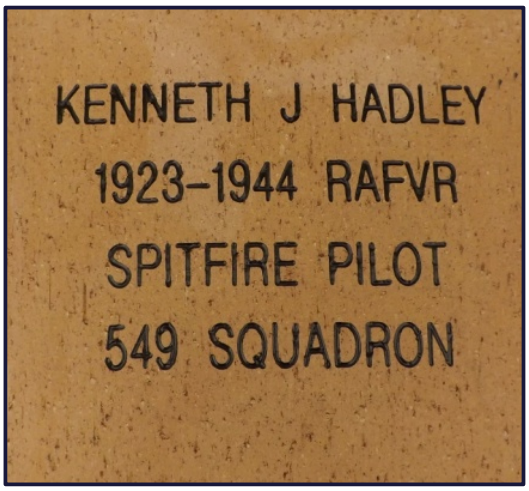
Brick No. 286 in Square 22



Our visit to the FAST museum was a surprise trip for our Ruby wedding anniversary. We do not have any connection to RAE, only a fascination with aircraft (especially Concorde) and an admiration of early aviators and what they achieved. The trip from Stockport was well worth it, the FAST museum is a wonderful place!

Kenneth J HADLEY

Brick No. 386 in Square 13



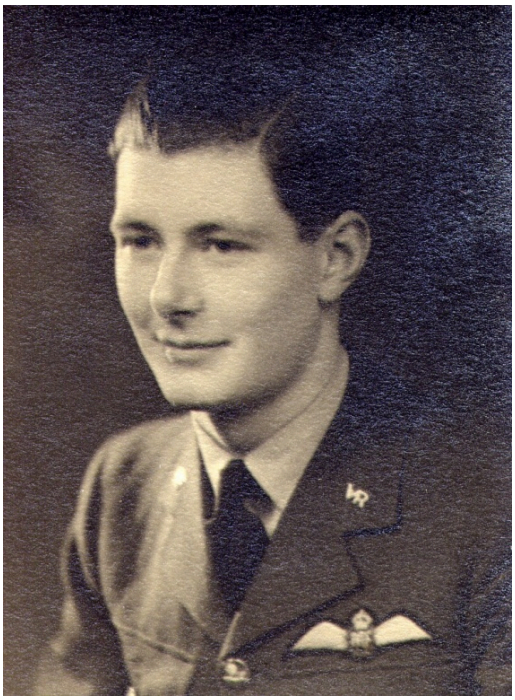
RAF (VR) 1923 – 1944

Kenneth was the eldest son of Joseph Lynton Hadley 1898 – 1962 (born in Summit, New Jersey, USA) and Ada Netta Davies 1900 -1953 (born in Portsmouth, Hampshire).

Ada Netta Davies was the eldest daughter of Josiah Davies 1871 – 1950 and Elizabeth Ann Rowe 1877 – 1958. Josiah and Elizabeth's youngest daughter was Kathleen Phyllis Davies 1917 – 1982. She was my mother.

Joseph Lynton Hadley was chairman and chief executive of Hadley & Sons Insurance Inc.
The family firm had offices in London and United States of America. The company were specialist ship insurers and J. L. Hadley was also a member of Lloyds.

Kenneth was born on 17th April 1923 at Wallington in Surrey. He, like his father before him, was educated at Marlborough College and on leaving school would have joined the family firm; however he went straight from school and volunteered to join the Royal Air Force at the age of 18 years on 19th September 1941.



Photograph taken just after Kenneth earned his 'wings'

He joined the RAF (VR) on 19th September 1941 signing on as a Leading Aircraft Man (LAC).

A day later on 20th September 1941 he was selected for training as a Pilot Observer and recommended for a Commission. This was at the Weston Super Mare Air Crew Recruit Centre.

He was posted to No. 9 Initial Training Wing on 18th October 1941, then No. 41 Elementary Flying Training School, Saskatchewan, Canada on 13th March 1942. He then went to 51 Group Pool on 20th June 1942.

He qualified as an operational Pilot Officer on 9th October 1942. He was London Gazetted as a Pilot Officer (ex LAC) on probation on 5th January 1943 (ref. 166) with effect from 9/10/1942.

On 23rd February 1943 he was at No. 61 Operational Training Unit, based at Grangemouth (within 561 Squadron) flying Spitfires. His combat and gunnery instructor was George 'Screwball' Beurling DSO, DFC, DFM & Bar, RCAF who ended his WW2 with a record 31 kills, the highest number for any Canadian pilot.

Kenneth was London Gazetted as a Flying Officer on 2nd July 1943 (ref. 2985) with effect from 9th April 1943. He was posted to the newly formed 549 Squadron in Australia near Adelaide as a Flying Officer, flying Spitfires during 1944. This Squadron was founded on 15th December 1943.

In February 1944 there were 17 RAF officers on the squadron this increased to 20 within a couple of months. Ground crew were all RAAF staff. 549 Squadron was a Spitfire squadron formed to provide fighter cover in northern Australia, an area that remained within range of Japanese aircraft until surprisingly late in the Second World War.



549 airmen. L-R: 'Scotty' Turner, F/Lt Glaser, ?, F/Off F.P. Mulready (wearing slouch hat), ?, ?, P/Off K.J. Hadley (killed in A47-13 Mitchell crash)
(Courtesy: E. Hofman)

Photograph taken in mid 1944 at Strauss air strip, 42 km south of Darwin, Northern Territory, Australia

Kenneth died on 6th August 1944 when the American B25 bomber (A47 – 13) in which he was a passenger, on duty and returning to base, crash landed about 10 miles from the Adelaide River. On 7th August 1944 he was buried at 1600 hrs at the War Cemetery, Adelaide. The burial service was conducted by Chaplain Squadron Leader Lance. The grave is number DA16.

The story of 549 RAF/RAAF Fighter Squadron can be found in the Book 'Together up There', written by Victor Posse' a nephew of a fellow pilot.

William A. Bonney
Woodley, Berkshire
20th June 2013

A V HAILE

Brick No. 668 in Square 19



Viv arrived at the RAE from Durham University in the summer of 1940 having recently graduated in Mathematics. His war work included design improvements to the Lancaster bomber but also lecturing to Apprentices. He found he enjoyed the ‘teaching’ aspect of his job and throughout the 1950s was a lecturer at the RAE Technical College. This college became the Farnborough College of Technology in the 1960s and Viv finally retired in 1980, as Head of the Aeronautics Department.

Edward John HALL

Brick No. 166 in Square 59



When I was about 5 years old in the late 1960's I remember standing out in the garden of our home in Winchester. It was one of those wonderful hot summers that you remember as a child, with a clear blue sky and days that lasted forever. My Dad was gardening as he usually liked to do and I was probably going about whatever I did in those days. My Dad called to me and said "look up there". I stopped what I was doing and gazed up. A tiny triangular speck was drawing a white line across the sky "that's a Vulcan,” said Dad. Fascinated I watched the tiny delta shape fly away at great height until all that remained was a fading white contrail, drifting lazily on the wind. Something inside me was ignited, a lifelong passion for aviation which lives with me to this day. I owe that spark to my Dad who had pointed out to me the tiny high flying speck. Such incidents leave a lasting impression on a young mind and I can still picture the scene today.

A little later my Dad had a small win on the Premium Bonds. He bought me a book on the world's aircraft, which I still have today. I used to spend hours looking at this book which in the early 1970s was when there were some truly classic aircraft about.

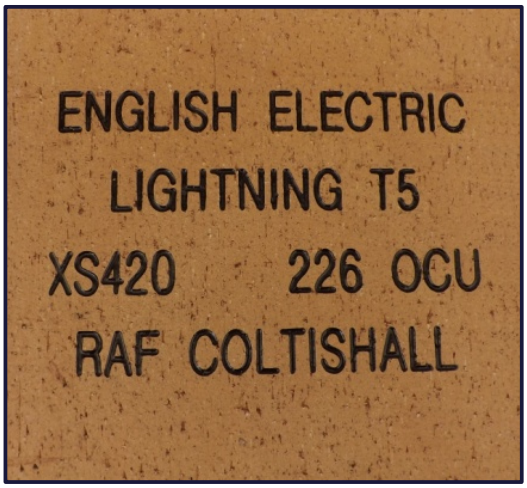
Since this time my interest in aviation has grown. I eventually took up gliding, powered flight and aviation photography. Today I am now the proud co-owner of Lightning T.5 XS420 which resides at FAST. Without Dad I doubt any of this would have happened.

Dad never had any connection with aviation, he was in the navy during the war as crew on the convoys that kept Britain supplied. Yet he kindled my interest in aviation on that day long ago in our garden.

We lost dad in November 2010 and his passing has left a huge gap in our lives. He never got to see the Lightning but I think he would have approved. With the placing of the brick in his memory at the Cody Memorial, I will always feel that whenever I am working on the Lightning, Dad will be close by and again we will both be looking up into the clear blue skies.

Richard HALL

Brick No. 196 in Square 23



English Electric Lightning T.5 – XS420

Lightning T.5 XS420 is the training version of the iconic supersonic interceptor which was at the forefront of the defence of the UK and NATO during the Cold War. Lightning interceptors were based at various RAF airfields in Britain and RAF Germany, where they were kept on 24 hour Quick Reaction Alert ready to respond to any attack or incursion from the Warsaw Pact.

The Lightning was in frontline service from the early 1960's until 1988 from where the last examples were retired at RAF Binbrook. During its time the Lightning became a firm favourite with pilots and the general public alike, due to its incredible performance which in many ways remains unsurpassed today. It was not unusual to see Lightnings going vertical in full afterburner to great heights in not many minutes. They were less popular with ground crews however, who found them demanding to work on and to maintain.

XS420 is essentially the F.3 fighter version of the aircraft with a side by side cockpit arrangement to allow the training of pilots. The aircraft's combat capabilities were the same as the fighter version with similar performance.

Constructed at Warton, XS420 undertook her first flight on 23 January 1965 in the hands of D.M. Knight. Having been taken on charge by the RAF, XS420 was assigned to No 226 Operational Conversion Unit at Coltishall in April 1965. It is the colours of No 226 OCU that the aircraft carries in her current role as gate guardian at Farnborough Air Sciences Trust. During her time at Coltishall the aircraft ran off the end of the runway after an aborted take off in January 1973. Luckily the aircraft was not badly damaged and subsequently returned to service.

XS420 then went to the Binbrook Aircraft Storage & Support Flight and following this, in September 1976, to the Lightning Training Flight again based at Binbrook. In December 1980 a transfer to No 5 Squadron took place where the aircraft remained until retirement in May 1983 having flown 2296.55 hours. Like other Lightnings, XS420 was stored on the airfield at Binbrook and was robbed of parts to keep the other members of Binbrook's aircraft flying.

With the end of the Lightning many airframes were sold off XS420 being one of them. The aircraft passed through various hands including Murray Flint who went to great lengths to return the Lightning to her original all metal finish. In 2003 Murray was approached by the RAF and asked if they could restore XS420 for display at the 2003 Royal International Air Tattoo. This was agreed and the aircraft moved to Cranwell for restoration. Following her stint at RIAT, XS420 moved on loan to Farnborough Air Sciences Trust (FAST). It was from here she was purchased by Neil and Heather Airey of Lakes Lightnings.

XS420 remained under the ownership of Neil and Heather until June 2012 when in partnership Richard Hall took a 50% share of the aircraft. In June 2013 Richard took full ownership of the aircraft and is now the very proud owner of this true British icon.

Farnborough has an association with the Lightning in that various tests and trials were undertaken with the aircraft type over the years. So it is fitting that XS420 now resides as gate guardian at FAST so that historic link is maintained.

Thomas Quinn HALL

Brick No. 253 in Square 7



Thomas Quinn Hall joined the RAE Weapons Department between 1946 and 1952, including some work at Woomera, Australia. He had been a Tempest pilot during WWII and was an accomplished glider pilot and instructor. In 1952 he joined the SBAC as Secretary to their Missiles and Space Technical Committee. During the Farnborough Air shows he was put in charge of the VIP Reception Enclosure, which at that time was at RAF Odiham, to where VIPs arrived by vehicle or aircraft then to be flown by helicopter into the Farnborough airfield.

In 1973/4 he accepted the post of SBAC Exhibitions Manager when the previous incumbent retired. In 1974 he and his Assistant, John Saunders, began to study the potential increase in the Farnborough International Air Show participation. Companies globally had looked upon this event as one of the most influential aviation show cases and had approached the SBAC to be included.

Until 1972, when the title of “Farnborough Europe” was coined, SBAC had only exhibited British products. In recognition of Britain's entry to the European Market, it allowed other aircraft with British components on board to exhibit. The 1974 show was the first truly “Farnborough international”.

In 1974/5 together with Leslie Gosden, the SBAC's Civil Engineering Consultant and main contractor, plans were made to meet the initial stage of increased demand by expanding one of the two exhibition halls which then existed.

In the following years it was clear that exhibition space was still insufficient and a further hall was constructed. In following years a fourth hall together with the creation of a new and larger Aviation Equipment Park and the planned expansion of the chalet spaces was actioned. This latter major operation in 1980 required the extension of the hill that formed the chalet rows and involved removing soil from a hillock close to that site to form that extension.

As the show expanded in size, so too did the supporting infrastructure. Tom was very active in promoting all aspects of the show, again showing much foresight. He was a very fair manager and ensured that the various national aviation consortiums were given an acceptable deal on the choice of space, which was not an easy task. The exhibition team was gradually increased from five to nine persons, not only dealing with Farnborough International, but also the frequent overseas exhibitions under the SBAC flag. Tom also did much to promote female advancement among his staff.His foresight and predictions of the trends in demand for participation in the show were without precedent. His leadership and the cooperation of the contractors enabled those trends to be met.

HAMPSHIRE COUNTY AIR SCOUTS

Brick No. 718 in Square 26



The 70 Scouts who attended the recent Air Scout Camp and who visited the FAST Museum had a fascinating and educational experience. I am confident that Air Scouts from across Hampshire, and wider, will continue to visit the FAST Museum over the coming years and will be pleased to see the movement appropriately supporting the work of other voluntary organisations.

Alfred Henry HARDY
Lionel Henry HARDY
Donald Douglas HARDY

Brick No. 1148 A B & C in Square 59







ALFRED HENRY HARDY: **Born 1871** **Died 1931** **RAE c.1917 to c.1922**

Alfred Henry Hardy was a pattern-maker by trade. He served as a sergeant in the infantry in France during the First World War. In 1917, he was discharged from the Army and came to Farnborough to make wooden patterns for aircraft at the then Royal Aircraft Factory.

Alfred was born and grew up near Basingstoke, later moving with his parents to Hitchin in Hertfordshire where Alfred was apprenticed as a pattern-maker and married a local girl, Annie Aylott. They had two sons. After he left the RAE, Alfred managed a cinema in North Camp and Annie ran a sweet shop in Queens Road.



Alfred Henry HARDY



Lionel Henry HARDY at his retirement presentation

LIONEL HENRY HARDY: Born 1899 Died 1986 RAE 1934 to 1969

Lionel was Alfred and Annie's elder son. When the First World War broke out, Lionel, then aged 15, lied about his age and joined up. He served on the Western Front throughout the war. He did not talk much about his service, but he spoke about the sudden silence at the moment the Armistice arrived, when the guns fell silent and how surprisingly quickly the birds starting singing again.

Lionel returned to live with his parents, now in Farnborough. In 1925, he married a local girl, Audrey Hewett, and they had a son, Donald, and daughter, Muriel.

In common with so many other former servicemen, Lionel found it difficult to obtain secure employment in peacetime. Eventually, he was taken on with a temporary contract by the Royal Aircraft Establishment as an Air Service Assistant Clerk in May 1934. The post was made permanent and he worked at RAE for 35 years, serving in various departments, including Accounts, Personnel and Registry, retiring with the rank of Executive Officer.

When the Second World War broke out, Lionel joined the Home Guard, with other RAE colleagues, including Bill Barker. He was persuaded to accept a commission as his platoon's gunnery instructor. Lionel was an excellent shot. His son remembered that Lionel was so strong that he could fire a rifle accurately with one arm. Lionel was known by many of his colleagues as "Sam" after the Manchester City goalkeeper, Sam Hardy.

Among the letters he received on his retirement in 1969, was one from the Director, Sir Morien Morgan, who wrote to thank him for his service and praise the quiet good humour which had made him many friends.

DONALD DOUGLAS HARDY: Born 1926 Died 2016 RAE 1941 to 1986



Donald Douglas HARDY

Lionel and Audrey's son Don left school in 1941 and became an apprentice at RAE, where he worked on photography alongside Professor Richardson. One of their experiments involved dropping smoke bombs inside the pagoda at Kew Gardens and photographing the result. Other experiments were carried out at Lepe in the New Forest. Don was fortunately working away from home on the night that a bomb fell on the family home in Park Road, bringing the ceiling crashing down on his bed. His mother and sister were safely in the shelter, but Don had had a bad habit of ignoring the warning siren.

After the war, when his reserved occupation status ended, Don joined the Navy, working on airborne radar-knowledge he brought back to service as a radar technician at RAE in 1948. He then worked in guided weapons research. He was seconded to the Ministry of Aviation from 1958 to 1964 as project officer for the development of missile and ground equipment for trials in the UK and Australia. This involved technical liaison with the Woomera range, and several trips to Australia.

In 1964, Don returned to Farnborough, to join Space Department. After researching data-handling techniques for satellite telemetry and command systems, he moved into project management. He managed the development and construction of data handling systems, including that for the Ariel 5 satellite.

Don started studying the operational implications of satellites in the Black Arrow programme in 1966. In April 1967, he was appointed as Head of Operations section, and given responsibility for the planning and execution of launch and orbital operations for the Prospero satellite, to date the only satellite launched on a UK rocket. He wrote that he was "given two

juniors, told to form an operations section and get on with it." He built a team and was responsible for the design and assembly of the Prospero satellite, its testing on the ground on the Isle of Wight, the launch at Woomera and its operation in orbit.

To save money, Don set up an in-house capability to control the satellite, acquiring a telemetry and command station in Australia and shipping it to Lasham. After refurbishment, it became the tracking station for signals from Prospero.

Don contributed to the scientific satellite projects Ariel 3 and 5, and led studies of advanced space missions. He was keen to exploit the potential for the use of information from satellites and in 1977 was given responsibility for establishing the Remote Sensing Unit within RAE. The Unit developed facilities for the processing and analysis of data from the Landsat and Seasat satellites. Don was promoted to Senior Principal Scientific Officer in 1978 and appointed as Superintendent of Space Systems and Applications Division. The Division researched civil and defence applications of remote sensing. Don established the National Remote Sensing Centre in Farnborough in 1980 and led further research into image manipulation and interpretation. In 1985, he was appointed Director of Earth Observation at the British National Space Centre, which was located within the then Department for Trade and Industry.

Don was awarded the Remote Sensing Society gold medal in 1984 and the Imperial Service Order on retiring from the Civil Service in 1986. He continued working in industry and as a consultant, until he moved with his wife Sheila to Alton in 2000. Don always enjoyed working with his colleagues. Among those his family remember him mentioning frequently are: Graham Davison, Mike Hammond, Harold Sketch, Roy Bain and Keith Bagot.

Serena Hardy
2 January 2025

Alfred and Marion HARMAN

Brick No. 501 in Square 20



We requested an engraved brick to mark our 55th Wedding Anniversary. We were married on the 4th October 1958 and our anniversary is on 4th October 2013. It is a pleasure to be part of this historical event. We have four children and seven grandchildren. The youngest grandsons have visited your museum and have really enjoyed it especially the simulator, it was hard to get them out of the cockpit, the youngest who is two liked the wooden model plane, he hopes his Grandfather will build him one. We will certainly bring them back as an excuse as we enjoyed our visit too. We look forward to being there when the statue is unveiled and hope the sun shines.

Steve and Mike HART

Brick No. 673 in Square 3



Firstly mine-it's about the saving of the RAE Dakotas ZA 947. In the 1980s, the aircraft was damaged & looked likely to be written off as scrap value. The then Deputy Director (Aircraft) and I (Manager RAE General Services) got together & decided that we should try & save this aircraft for the future. We obtained spare parts, including, I think, a main spar from many parts of the world & and with AD's (Aircraft) expertise and his workshops, and my control of the "local purchase" funds, we were able to get the Dakota back into the air again-it was transferred to the RAF Battle of Britain Memorial flight in 1992, & still flying today, giving pleasure to many at air shows

Steve amusing tale-as a new apprentice at RAE, he needed boots, obviously from the stores. The store man asked what size he took-the answer was "8 or 9, not sure". The boots duly arrived & Steve wore them for some long time before, I noticing something he saw that was one boot was size 8 & and one was size 9. Both boots were comfortable-the store man had the last laugh, I think!

Elgar HAY

Brick No. 150 in Square 15



I feel privileged to have acquired an RAE apprenticeship and enjoyed many years working at the RAE and IAM. Over this time, I have worked on many interesting projects and made good friends.

W D T HICKS

Brick No. 883 in Square 9



1946-1986 Structures Dept



Always known as Bill in the RAE. He was in the RAF Middle East four years, ground work, radio etc. Came back to Exeter and was sent here to RAE. He enjoyed work there but thought Farnborough was dull after Exeter. However he joined Ex RAF Club, held in a Nissen hut on the Farnborough RD (not there now). I had been in the ATS 4 years and came home to Netley SP1, happy to stay in, but a friend forced me to go to the Club, was introduced to Bill. We had Devon in common as my Mother came up in the First World War and worked on SE Wings (photo enclosed). We married in 1954 and had three lovely daughters – all have done well, thanks to Bill, with his knowledge. I left school at 14 and did not go for further education. Bill was a good husband and father, also bought this house £1,500 so my parents could continue to live here. So I have been very lucky, but sad that Bill had a stroke and died in 1997. He would have been very upset about the trouble in the Middle East. So that's all I can say, it was a simple life, but happy.



Keith HIGGINS

Brick No. 760 in Square 18



I requested an engraved brick near the Cody statue in memory of my dear husband who died almost 10 years ago.

We moved to Farnborough from West London - not far from Heathrow Airport - in 1978; where he had lived since childhood thus starting his fascination and enthusiasm for aircraft and flight. He hardly ever missed an Air Show at Farnborough. He would often take a walk along the Farnborough Road by the Swan public house and see planes take off and land.

He owed and ran his hairdressing business in Lynchford Road from 1978 until 2002. During that time he met many people who worked or had connections with the RAE, as it was called then. Many of his clients were members of the RAE Operatic & Drama Society, I think that's what they were called?!

Albert HILL

Brick No. 320 in Square 5



Press cutting from 1958:

We regret to announce the tragic death of Mr. Albert Hill, of 32 Department, E.A.S.D., who died as a result of injuries received in an accident in “D” Hangar, when a Canberra Aircraft entrance door flew off during a pressurization test.

Mr. Hill commenced work at the R.A.E. in 1913, in the Coppersmith's shop, where was employed until his transfer to 32 Department in January 1953, where he was known throughout as "Bert the Rivetter."

A well known bowls player, he took the game very seriously. He was a founder member of the Cove Bowling Club, was an officer of that club for many years and had collected many trophies.

He was the holder of the Imperial Service Medal, of which he was very proud.

Well known throughout the R.A.E., he will be greatly missed by his many friends.

Internment took place at St. John's, Cove, on 12th November, and floral tributes were sent by the BAe Workshops Social Club, E.A.S.D., and 37 Department.

To his sister, with whom he lived, we extend our deepest sympathy in her sad bereavement.

Jimmy HILL

Brick No. 272 in Square 36



Jimmy Hill served his apprenticeship in John Browns shipyard in Glasgow, in 1936 he decided that the future in ship building was declining and the aircraft industry was to be the future, he applied to be a draughtsman at the RAE and was successful.

During his early years he worked with Ben Sykes on the Gyro-gun site drawings and many other projects which took him to Pendine and RAE Bedford. Eventually he became Chief Draughtsman in ARL Dept. Retiring after 36years.

Katrina HITCH

Brick No. 588 in Square 27



In the 32 years I spent in RAE. I was proud to be there and feel part of the excellent R & D work going on at that time. There's lots I could talk about but you said "a few words" so here are just a few I remember vividly.

I began as a TCIII in General Admin in October 1953 following the John Derry air disaster at that years Air Show. The office was a "lean to" a hanger just inside S Gate & next to Q1 Building. Where the Brabazon was being dismantled & and it was very noisy, I recall shortly afterwards the TRSR2 met the same fate. In those days clerical grades were moved around RAE every 3 years or so & I was lucky enough to be posted to Radio Department P161 Building where Geoff Lee was Admin Officer. Whilst there I did an "interest flight" in what was known as the Comet flying test bed & and spent a full day flying from Farnborough to Lossiemouth and back & forth whilst the crew of scientists were testing communications equipment & I was able to listen through headphones to the conversation between the Crewe & Control tower. This was my first experience of flying & it was exciting! My second adventure was part of an SBAC Air Show-we were considered as "ballast" in the civilian version of the De Havilland 146 & together with the Military Version containing troops & jeeps, we did several circuits of the airfield with tight G turns & felt the pressure on our faces-fascinating stuff!

I also worked in Trenchard House for a while when it was G1 Building & housed Stores Provisioning Department. My third flight from RAE (F) to Aberporth to visit my opposite number in Finance Department was in a Dove & on a blustery day & I was sick! Whilst in Finance Department Tony Benn was Minister of technology & "opened up" RAE facilities, wind tunnels etc & we were the first establishment to have machine tools. I personally invoiced companies to the tune of £1 million during that period & was saddened when the next Government ended it.

During a spell in Personnel Department. I recruited Geoff Hiscott direct from University-he's now Chairman of the ex Apprentices Association & latterly I was responsible for the Apprentices & witnessed the scientists, engineers & craftsman of the future honing their skills-that was very rewarding.

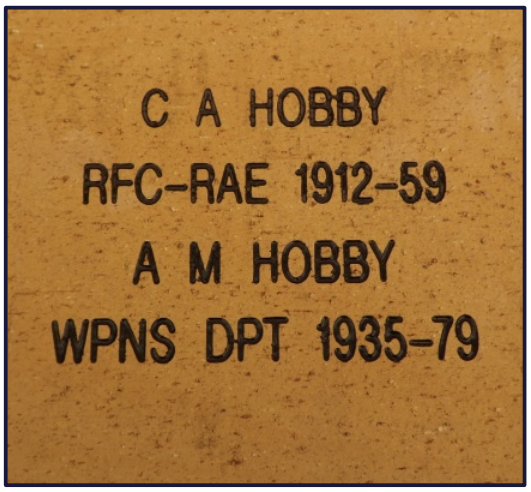
I was several years Admin. Officer in Defensive Weapons and Heads of Departments - Mr. Thomas & Dr. Derek Oliver & and was security cleared T2A level in order to take minutes at Heads of Division meetings-I felt very privileged to be part of that team.

I was at the unveiling ceremony on 7/8/2013. I also remember the Cody House near Ash Vale station (I lived in Ash Vale from 1939 to 1959 when I was married) & knew Paul Cody in those days.

Happy days at the RAE and thanks for letting me reminisce.

Albert Middleton HOBBY

Brick No. 197 in Square 31



Albert Midleton Hobby was born on 31st May 1914. In his teens he was apprenticed to Instone's Garage(now Tower Hill Garage) in Cove. He subsequently joined the Royal Aircraft Establishment as an Engineering Craftsman.

During the Second World War he was frequently called upon to visit various Defence Establishments including naval dockyards where he carried out armaments work. He spent considerable time working aboard HMS Pretoria Castle, an armed merchant cruiser and escort aircraft carrier. Requisitioned by the government, she had previously been the ocean line Pretoria Castle of the Union Castle Line; built by Harland and Wolff in Belfast and launched in 1938. On one occasion the vessel he was on, along with a number of other civilians, put to sea when the alarm was raised that the German battleship Bismarck was making her famous run for the open waters of the Atlantic through the Denmark Straights. It's not known how far this particular vessel got but he didn't "see" any action!

He would also tell us of his memorable encounters with famous military personnel, in particular Eric "Winkle" Brown. He told us of one occasion whilst engaged in some trials on the south coast of England. Brown was flying an aircraft and presumably got bored with flying up and down near the coast and "diverted" to France where he engaged the enemy with, we believe, the rockets which were the subject of the trials. In the meantime the shore party became increasingly concerned about Brown's whereabouts and were most relieved when he returned.
During the Cold War years an aircraft gun and ammunition "rescued" from a Warsaw Pact country were being evaluated at Ball Hill Range. Father entered the workshop just in time to stop a high ranking American who had clamped one of the live shells in a bench vice and was about to give it an almighty clout with a club hammer!

For many years he was a member of the St. John Ambulance Brigade and an active first aider. Following an accident in which, we believe, a man lost a hand he received a letter of commendation from the Director of the RAE for his valuable first aid effort.

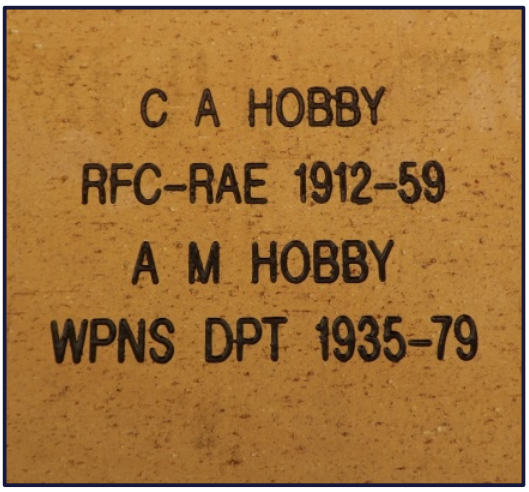
The following is his letter of appreciation when he retired:
I would like to take this opportunity, on the occasion of your retirement, to offer my personal thanks for the services you have given to the Royal Aircraft Establishment over the past 41 years.

In the course of those years of service, during which you must have seen many changes, you have built up a fine reputation for careful and accurate workmanship of which you have every reason to be proud. Since joining Attack weapons Department in 1959 you have made a valuable contribution to the efficient operation of the Ball Hill Range.

I hope that you will take with you many happy memories of your association with the RAE and I join your friends and colleagues in wishing you a long and well earned retirement.

Charles Albert HOBBY

Brick No. 197 in Square 31



Charles Albert Hobby was born on 5th February 1892 in Leatherhead, Surrey. Having joined the Army he was active in the Air Battalion of the Royal Engineers from which the Royal Flying Corps was formed in May 1912. He was one of the earliest members of the RFC with a service number of 52 and was awarded R.A.E.C. Aviators Certificate No. 757 on 27th March 1914 having learned to fly at the Central Flying School, Upavon.

During the early days of army aviation on Laffans Plain he worked alongside Col. Cody assisting with the military support for Cody's experimental flying. He would, of course, regale us with the tale of Cody tying his aircraft to a tree in order to measure its thrust. Equally entertaining were his accounts of his own mishaps occasionally resulting in his aircraft tipping on its nose or how, during the war, pilots would engage the enemy with pistols and .303 rifles!

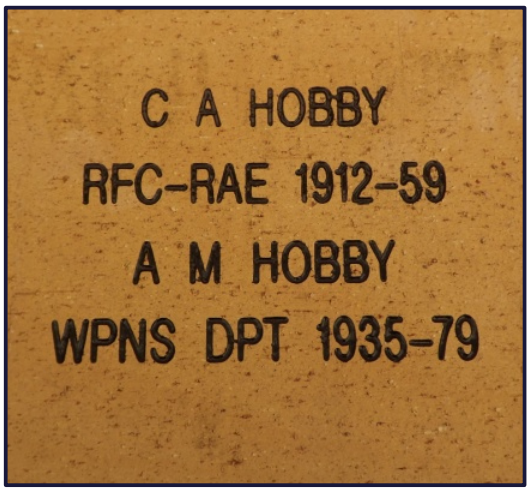
During the First World War he saw service in France and was Mentioned in Despatches at, we believe, the Battle of Mons.

His military service continued and, following the formation of the Royal Air Force on 1st April 1918, he served in various locations including the Middle East.
On retiring from the RAF he joined what was to become the Air Ministry Constabulary as a Sergeant. During his time in the AMC, including the years of WWII, he helped to maintain security at the Royal Aircraft Establishment. It was in the austere post war years that we developed our taste for pheasant and rabbit, both plentiful on the airfield and easy prey for grandfather's shotgun!

On one occasion he was patrolling the airfield perimeter in a land rover with a colleague late one afternoon. They became aware of a man inside the fence covering up some objects on the ground close to the fence. The man, unaware of presence of the constabulary, soon left. A close inspection of the spot revealed several dozen strips of hard wood beading about six foot in length each one having been pushed a few inches through the fence obviously for collection from outside the fence later that evening. A great shame one could not see the man's expression that evening when he returned for his spoils only to be rewarded with four inch lengths of beading, the remainder having been returned to its rightful department!

Michael HOBBY

Brick No. 197 in Square 31



I spent about five years working at RAE and was an active member of the Aero Club, frequently flying the club's Tiger Moth. I wonder if any other families can claim three generations having worked at RAE!

Maurice D HODGES

Brick No. 531 in Square 12



In 1939, at the age of 12, I started my technical education in Portsmouth Junior Technical School. On the 1st September that year the school was evacuated to Salisbury to share the premises and facilities of The Bishop Wordsworth School – a school that had no workshop facilities, with the consequence that any practical workshop training that I might have had, had the school been able to remain in Portsmouth, was not available.

For the first 2 (I think) terms of the academic year I, along with 11 other boys (including one senior in his final (3rd) year) and a Master and his wife were billeted in The Bishop's Palace, with the boys sleeping in beds on the floor in one of the State rooms under the watchful eye of many a grandee whose portraits hung on the wall.

Behind The Palace there was a pond presided over by a solitary swan, Priscilla, and inhabited by the usual pond species, including a one-legged frog that could swim only in circles – I presume Priscilla had had the other leg – and enough room for a makeshift football pitch with just one set of goalposts made from fallen branches.

Sadly, the introduction of food rationing made the task of feeding the whole household too daunting for the small number of kitchen staff and our tenure in The Palace came to an end. I had two further foster homes before leaving school.

Sadly, too, since those days, economics has overtaken the Bishop and The Palace is now occupied by the Salisbury Cathedral School whilst the Bishop has decamped to 71 The Close.

One purpose of Portsmouth Junior Technical School was to educate pupils to the standard required to enter the entrance exam for dockyard apprentices and naval artificers. I duly sat the exam, passed, and left school, aged 15, in 1942. However, I did not return to Portsmouth, neither to The Dockyard nor The Navy.

My parent's home in Portsmouth was destroyed by a bomb in early 1941 and, because my father (who was in the confectionary trade) was working in London at that time, my parents and my older brother were re-housed by Surrey County Council in the upper floor of a council house in Ash, the ground floor being occupied by the lady who, with her two children, had occupied the only house in Ash (as far as I know) to be hit by a bomb.

By 1942 my father had, due to confectionary rationing, been stood down by his employer for the duration of the war and was working as a full-time Fire Guard Officer in Aldershot. On learning that I was about to leave school one of his colleagues suggested that I might apply to RAE for a position as a laboratory assistant. This I did, was accepted, and duly allocated to the Metallurgy Division of Materials Department under Mr N. H. Mason. My responsibilities were mainly to prepare specimens for examination under the microscope and to take photographs showing the nature of any fracture that may have occurred in a component during service.

At that time Mr. Mason may have felt that the post of laboratory assistant was "a bit of a dead end job" and suggested to my father, in the early summer of 1943, that I might take the apprentices entry examination in respect of the 1943 intake. (The development of The RAE Technical College that, later, was to provide part-time education up to degree standard for laboratory assistants is well-documented elsewhere.) Whether or no I passed the exam I was never told but, nevertheless, I received an invitation, which I accepted, to enrol for a 5-year engineering apprenticeship. Thus I joined a group of 42 other "lads", all about the same age as myself, several of whom were ex-Farnborough Grammar School pupils, who had left school at 16 rather than 15 as in my case, some of whom have remained life-long friends. Whilst I was a laboratory assistant my weekly wage had been 25 shillings (£1.25) but when I became an apprentice it dropped to 22 shillings and sixpence (£1.12½) – thus acquainting me with the difference between a white and a blue collar!

The concept of "day-release" (rather than attending night school) was established soon after the start of my apprenticeship but, initially, and until late into my apprenticeship, the working week (the country was at war) was 5½ rather than 5 days.

As was the established pattern, my first year was spent on the shop floor in the apprentice workshop followed by 2 further years on the shop floor in various departments. Then the final

2 years were spent in various drawing offices or laboratories. In 1946 I obtained my Ordinary National Certificates in Mechanical and Electrical Engineering and in 1948 I obtained my Higher National Certificate in Mechanical Engineering, an academic qualification which, then, enabled one to be accepted as a Student Member of both the Institution of Mechanical Engineers and The Royal Aeronautical Society. During those last two years I captained the RAE Apprentices cricket team and played a (very) few games for an RAE XI.

A feature of the apprenticeship was that one was given a flight experience as a passenger when one of RAE's ferry aircraft was required to fly to some other site to collect or deliver material. Mine, with two or three other apprentices was to Short Bros. at Belfast and my most vivid memory is of flying over The Isle of Man along the central valley between the north and south mountains. The pilot's business with Shorts took an hour or two during which time we were allowed to leave the site to find some lunch before returning to the aircraft for the flight back to Farnborough.

On completing my apprenticeship I, along with 5 other apprentices, was awarded a scholarship to the 2-year post-graduate diploma course at The College of Aeronautics at Cranfield (now assimilated into Cranfield University), my first year being financed by Hampshire County Council. However, the Council refused to extend the bursary to the second year, on the grounds that I resided in Surrey (Ash Vale) and not in Hampshire and an application to Surrey County Council was also rejected, on the grounds that I had not been educated in Surrey. However the College of Aeronautics, itself, provided a bursary for the second year which enabled me to complete the course (taking aerodynamics as my specialization) and to obtain the post-graduate diploma (DCAe, later re-graded as an MSc) awarded on successful completion of the course. During the long vacation between the two years, I was employed by RAE as an Assistant Experimental Officer in the Aerodynamics Department, which provided me with a much appreciated source of income.

On a few occasions RAE allowed the ex-RAE apprentices to fly back to Cranfield on the Farnborough to Bedford ferry on the Monday morning of the first week of a new term. On one occasion the ferry was delayed by fog and we missed the first lecture much to the ire of Professor Lickley whose lecture it was.

On leaving Cranfield I joined the Aerodynamics Department of English Electric's newly-formed Guided Weapons Division (now absorbed, after many amalgamations and name changes, into BAe Systems) located at the Napier Engine Works at Luton Airport – located there because it was originally envisaged that a liquid-fuelled motor would provide the motive power for the proposed weapon. However the weapon, when eventually developed, and in service as the Thunderbird Surface-to-Air Guided Weapon System, was launched using solid fuel rockets, whilst BAe Systems long ago vacated the Luton site and moved to Stevenage.

For my first three months at English Electric I was seconded to the Guided Weapons Department at RAE Farnborough to familiarize myself with the technology and methods of analysis used in guided weapon flight trials.

Returning to Luton, my responsibilities were then the planning and analysis of the flight tests of, first, the small-scale Luton test vehicle (LTV) and then of the full-scale vehicle. These duties entailed many visits to the firing ranges at Larkhill on Salisbury Plain and to Aberporth on the shore of Cardigan Bay. Eventually English Electric established a trials team at Salisbury, a northern suburb of Adelaide in South Australia, which I visited in late January/early February of 1955 to gain some knowledge of the facilities there. I travelled by the RAF Bomber Command ferry service which incorporated a rest day at the Changi RAF base on Singapore for the crew on both the outward and return journey. On the outward journey, in the evening in Changi village, I met entirely by chance N. ("Nobby") H. Gilbert then an RAF pilot stationed at Changi – a fellow apprentice of the 1943 intake. Sadly, Nobby was killed a few years later when the aircraft he was flying lost an engine.

My visit to Salisbury included going to the Firing range at Woomera to gain some knowledge of the facilities there and coincided (not entirely by chance) with the Adelaide Test of the 1954-55 Ashes Series which England won and thereby retained The Ashes.

During the latter period of my time at Luton I moved from flight trials to work on the aerodynamic design and performance of Blue Water, a proposed surface-to-surface missile to be used against ground troops but the project was cancelled in 1962.

However, it so happened that I had resigned my position in Luton at the end of October in 1961 and accepted an appointment in the Technical Department of the Royal Aeronautical Society as Technical Secretary to the recently formed Transonic Aerodynamics Committee supported by grant aid from industry and government. The first chairman of the Committee was Mr A.B.Haines of ARA Bedford, himself an ex-member of RAE's Aerodynamics Department. During my tenure as Secretary, the committee was always well-supported by RAE in terms of contributing members from both Farnborough and Bedford, several of whom chaired the committee, who were able to provide expertise (and relevant experimental data) in guiding and monitoring the work of developing and evaluating methods relevant to the prediction and understanding of transonic flow, the work culminating in design and analysis tools issued in the Transonic Aerodynamics series of Data Items. During my time as Secretary there was a particular emphasis on determining the flow conditions at which shock wave drag would become manifest, on calculation methods for flows with weak shock waves and determining the conditions at which the shock wave would be strong enough to cause the flow to separate.

I retired from full-time employment in 1985, by which time grant aid had been withdrawn and the Technical Department had become a commercial entity as the Engineering Sciences Data Unit (ESDU), which in 1998 was purchased by IHS Inc based in Denver and now operates as IHS ESDU.

I continued to be employed by ESDU in a part-time capacity until October 1986 but, on retirement, was invited to join the Transonic Aerodynamics Committee and to serve as a voluntary Independent Member, which I did. However, conscious of having somewhat neglected the Arts in my involvement with Science, I used part of my new-found leisure time to study for and obtain a BA(Hons) degree with the Open University, which helped to redress the balance.

I finally retired from the Transonic Aerodynamics Committee at the end of 2006, shortly after my 80th birthday feeling that, by then, I had made recompense to the world of aeronautics in some small measure for the training I had received at RAE and from which my career had ensued.

Bernard HOLLOWAY

Brick No. 1010 in Square 51



(b 1920 – d 2011) RAE 1950-1980

Bernard came to the RAE in 1950, subsequently joining the Space Department.

He worked on the X4 Satellite – named Miranda for a number of years and went to California in 1974 when it was launched. It is still in orbit and can be tracked.

During his later years at the RAE he worked on the development of fibre-optic communications for aircraft until he retired at 60 in 1980.

For many years, Bernard was also a keen member of the RAE Rifle Club which met every week at the RAE rifle range in Farnborough.

Mike HOLMDEN

Brick No. 577 in Square 4



Born 20th of November 1929 in Hailsham, East Sussex. After leaving Lewes County Grammar School in 1947 I sought a job and became a telephone engineer with the then Post Office Telephones, like my father. Initially I took several C&G exams in telecoms and associated maths but then discovered the

more acceptable broad-based qualifications in the Ordinary National Certificate (Electrical) and the Higher National Certificate (Electronics). The Post Office, in their wisdom, would not accept the ONC and the HNC so I applied for 6 promotional jobs within the Civil Service and, in September 1962 got the one I least expected - at the Ministry Of Aviation, National Gas Turbine Establishment at a place called Pyestock. Originally the post was work on an Elliot 405 Computer (with ferrite cores and glowing things called 'valves'). However, due to my electronic qualifications, I would be in charge of electronic workshop testing these things called gas turbines (and various other experimental rigs and equipment) - a little bit different to telephones! I quickly picked the job up and after a few weeks was working on average about 80 hours a week.

After five years I decided in October 1966 to move to the nearby Royal Aircraft Establishment into a lodger unit called Air Technical Publications. We were housed initially in two of the wooden huts between the Black Sheds and G1 Building but then moved permanently into the latter - Trenchard's old building. (This originally housed one of the female typing pools.) Our work was to provide and amend technical manuals and other associated documentation for the RAF and Royal Navy. In about 1975 I volunteered to also be a Safety Representative for the then Institution of Professional Civil Servants. I retired from the RAE in November 1990 at the age of 61.





The clock in the above photo was given to me by my father when I was about 7 years of age. It depicts a nondescript monoplane with a turning propeller to indicate that it’s working. It was to foretell my future. The photo of myself on the right above was taken when I was retired at the age of about 75. The blue tie is a standard RAE version for all staff and, I believe, the maroon version is for past RAE apprentice.

HORNBY Family

Brick No. 645 in Square 11



A few Comments about our grandson, Logan Philip Ross Hornby...

His great great grandfather (David Childs-Bashford) worked for Cleveland Bridge around 1912, with possible connections to the balloon hanger.

His great grandfather (Harry Hornby) was a navigator in Catalina flying boats during WW2.

His grandfather (Richard Hornby) had a PPL and owned a Piper PA12 Supercruiser G-ARTH for a few years in the ‘80s.

His father (Philip Hornby) lived all his life (32yrs) in Farnborough within viewing distance of Airfield and loves aeroplanes.

Paul HOTHAM (son of Maureen MAYBURY)

Brick No. 288 in Square 22



Paul served his apprenticeship at the R.A.E. from September 1984 until March 1986.

Leslie Reginald HOUGHTON

Brick No. 850 in Square 25



Service in Farnborough 1956-1992

It is with fond memories that I look back over my many years at Farnborough.

After attending Godalming County Grammar School, at 21 I went on to serve in the RAF for my National Service. I then worked for British European Airways at London Airport.

I started my employment at the RAE in 1956. Farnborough provided me with many great challenges and a fulfilling working environment. It was a pressurised environment, making sure planes were serviceable and able to fly on schedule. I worked on the Chipmunk, V-Bomber, Comet, Jaguar and 111 aircrafts. I was able to travel the world to places including but not limited to, Florida, Cyprus, South Africa, the Middle East, Malta, Singapore, Nova Scotia and Greenland, working on assignments for installations of an electrical nature.

I was fortunate enough to work on aircraft communication systems, which were early examples of the Satellite Navigation System, we now know as GPS. I am proud to have worked in a team with many highly valued colleagues, in a worldwide recognised centre for aviation excellence. In 1993 I was awarded the Imperial Service Medal upon my retirement.

Ian F HOVELL

Brick No. 497 in Square 28

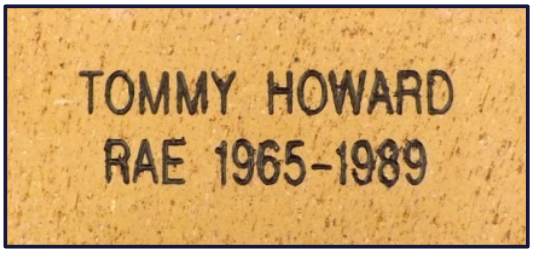


Ian started work as a apprentice in 1955 and trained to be a instrument maker, he then went to work in Base Work Shop. In the 1970's he went to Met Research Flight and helped work with snoopy he also went flying in it.

In the 1980's he was sent to Survival Equipment Department and after a few years he went to Planning Department and stayed there until he took Redundancy. Ian retired on 24th of March 1994 in all he worked at the RAE for 40 years.

Tommy HOWARD

Brick No. 920 in Square 4



RAE 1965-1989

I finally got around to purchasing a brick in the name of my late Father, Tommy (or Tom) Howard. He loved the RAE and everything to do with aircraft and flying. He did his National Service in the Royal Air Force. He joined the Air Training Corps as a volunteer instructor and later served for many years as a Warrant Officer. He was also a member of the Royal Observer Corps for some time.

Tommy, an Electronics Craftsman, joined the RAE in 1965 at the West Freugh range in Galloway in south-west Scotland. When the range was put out to contract, he wanted to remain a civil servant and to stay with the RAE, so he transferred here to Farnborough in July 1982. He was accompanied by his wife and myself.

Tommy made his mark on RAE in a number of ways, not least insofar as I was concerned. Directly because of him, I flew to Farnborough (courtesy of the RAE Air Ferry Service) for job interviews in Materials Department. The life-changing result was a career which lasted over 26 years. Thanks Dad!

Another noteworthy fact is that my sister Christine was the first, indeed the only bride ever to leave RAE West Freugh for her wedding and there is a photograph of the proud father of the bride and my sister complete with a short article on page 14 of the RAE News Vol 33 No 11 November 1988.

As part of his work, Tommy would provide radio support and fit and maintain radio (RT) sets in RAE vehicles and for a number of other organisations including the Farnborough Airshow and the Red Devils parachute display team.

With his friendly and cheery personality, he was a well-known and very well-liked man. Thanks to his many friends and contacts; I have jumped with the Red Devils, met the Battle of Britain Memorial Flight crews and various Red Arrows teams over the years and I have sat in the cockpit of numerous aircraft including The BBMF Lancaster and a Victor Bomber – and all due to Tommy Howard.

Another of his “contacts” also gave me a job. The RAE Air Ferry service had a small Mess in Q1 Building and each Christmas Party I was duty barman. As a lager drinker myself, my father persuaded the aircrews that I was the only one trusted enough to look after the “real” beer available on tap!

I know that the purchase of a brick is in support of the FAST Cody Statue Project and not a memorial. I just wanted to honour my Dad in some way and, since he loved all things aircraft, I can think of no more fitting a tribute to a good man, a very popular man, and a loving Father. I miss him.

Maurice E HURRICKS CEng. MIET

Brick No. 478 in Square 37



RAE 1986 - 2000

My first encounter with Farnborough was visiting the air show in the late 50's whilst still at school. Upon leaving school I became an apprentice with Elliott Bros at Rochester and studied to become a chartered engineer. During this period I worked closely with the RAE on many air weapon projects. In the early 70's I transferred to Marconi at Frimley with almost daily contact with staff in Y20 building on weapon research. In the mid 70's I joined the MOD through the civil service commission and was posted to AWRE and only occasional contact with the RAE. However upon promotion in 86, I took up a post in Defensive Systems department at Farnborough and worked in building Q134 and Jersey Brow. Then through the transition to the DRA and DERA, which provided badly needed 20th century accommodation I finally rejoined the MOD and departed Farnborough in 2000 for a post on DCDS(EC) staff, based in Whitehall London. Here working for an air department I enjoyed a very close relationship with both Dstl and QinetiQ staff at Farnborough until retirement in 2005. It has been a privilege over some 45 years to work with world class scientists and engineers at Farnborough who throughout the many challenges never lost the "Cody" spirit.

Derek, Andrew, Emma, Charlie HURRY

Brick No. 822 in Square 33



Like my son Andrew Hurry, I was in the Fleet Air Arm from 1948 to 1955. He is a Lt. Cdr. Helicopter pilot in the FAA still after 33 years' service. He flies all over the world on duty but no longer in a helicopter. His wife was in the Royal Navy and won the Queen's Sword at Dartmouth, presented to her by the Duke of Edinburgh. She retired after 18 years' service. Their first son Charles Ragland Hurry was born on 1st October, 2012. Known as Charlie.

HURRY Family

Brick No. 945 in Square 7



My family, also known as AECO, Andrew, Emma, Charlie and Oliver Hurry, who was born on St. Valentine's Day, 2015. My late wife Audrey would have been a very proud Grandmother as I am.

I am known as Grampus to them, at the age of 86. They have all been wonderful and made my life worth living. I hope that one day, they will also visit FAST and see Cody's Statue.

Patricia Ann JEACOCK

Brick No. 779 in Square 10



Pat was born Patricia Ann Noke on 15th March 1939 at Frimley Hospital. She lived her young life in Mytchett with her mum and dad and two brothers, George and Robert.

As a young girl she played in and around the local woods and the Basingstoke Canal, and attended schools in Ash Vale.

Leaving school at the age of 15 she worked locally in North Camp and in Frimley, until joining the WRAC with whom she served at Guildford and Kingston/Acton, and later saw service in Cyprus. It was in this period of her life she worked in offices, learning the job of typist.

After demob from the WRAC she married her first husband who was serving in the Navy, unfortunately this man was killed on duty. Pat later met and married her second husband, a bandsman in the 13th/18th Hussars, this at a time when Pat served with the YMCA in Germany. This marriage ended in divorce. Pat remarried August 1976, to Mr. R. J. G Jeacock (the author of this story) a Civil Servant working for the Army. Pat and Ron spent many happy years together, both being posted to Leconfield Airfield. Both serving there for 7 years. Having returned to the Farnborough area Pat worked firstly at the Army Hospital Aldershot. Then at the RAE Farnborough, and also with Comax Pyestock, after RAE Farnborough closed.

After retirement Pat and Ron spent many hours walking in the same woods and Canal areas that Pat roamed as a child. After many years suffering bravely in illness Pat died on 7th December 2012, with Ron at her bedside. Ron scattered Pat's ashes along the paths of the woods and the canal that she loved so much and she requested flowers in Pat's memory are always to be seen along the canal tow path.

Ronald James JEACOCK

Brick No. 800 in Square 10



Ron was born in Cranleigh Surrey, on 14th February 1927. He attended the infants in primary schools there until 1938 when the family moved to Chiddingfold where his father took a tied cottage over, and worked as a gardener on a small estate. Ron worked as a paperboy for W. H. Smith on Whitley station from the aged 12 before attending the C. of E. School. After all WWII had started in 1939, the family moved back to Cranleigh, by this time Ron was 14 years old and still working for the newsagents. At 17 years old Ron had taught himself to drive and got a job of Baker's Roundsman with a bakery in Shamley Green.

When the D. Day landings were announced, Ron volunteered for the Army and served with the RASC. At this time our servicemen, who had been a German Prison Camps were being released by our invading army, and were being flown to various airfields in the south of England including high Wycombe area and Dunsfold. Ron's unit were responsible for transporting these troops to various camps in the south. Later Ron served in Italy and Greece.

He was demobbed from the Army March 1948, when the Suez, Egypt, uprising started, Ron enlisted into the TAVR, an arm of the Territorials, and served with that organisation for 20 years as a part-time soldier. By this time Ron had been a Civil Servant and worked initially at Buller Barracks Aldershot, training new army entrants in the skills of driving and other skills required by Army drivers. When Buller closed for driver training, Ron was posted to Leconfield (for 7 years) then Crookham for 13 years until he retired.

After serving in the civil service the 23 years Ron met and married his second wife Pat Jeacock (neé Noke) in 1976, who was also a Civil Servant and worked for the RAE, and Comax at Pyestock. But that's another story. Pat died December 2012, and Ron has retired to a new flat in "Queensgate," Farnborough.

R M JENKINS

Brick No. 118 in Square 7



RAE 1965-70

My first graduate job was at the Royal Aircraft Establishment, Farnborough and I'm still proud to have been a part of it over 40 years later. I joined in 1965, aged 21, as a Scientific Officer and was accommodated in the Senior Staff mess located outside South Gate. Here I met other new recruits and some old hands who quickly showed us the ropes. We took our meals at long highly polished tables in what was believed to be in former days the first RAF officers' mess.

The RAE was an exciting place. One came across all sorts of interesting characters and objects (e.g. Cody's tree) and there was always some noisy trial going on. I worked in two departments, Mechanical Engineering and Space, and I met some extremely clever people. I was interviewed by a board chaired by the Head of Space Department, George Burt, who took a gamble and offered me a job. I worked first for the famous Beatrice, referred to as "Tilly", Shilling. She looked after-Tyres -& Runways and Cryogenics. On the first day I was told about her orifice (a brass restrictor fitted to the carburettors of Spitfire engines during WWI I that solved the problem of cut out during a dive), her motor cycling exploits and her accidents. She was a diminutive figure with a big reputation. She was interested in anything that went fast particularly if you could race it. We ended up completely redesigning a bobsleigh for the RAF Olympic team. This was masterminded by Douglas Bewley and overseen by Tilly. He did a magnificent job. It involved me spending hours freezing in a cold chamber measuring coefficients of friction of different runner materials.

I was mentored by Douglas Bewley and later by Roy Crabb. Very capable guys who appeared quite old to me but must have been only about thirty at the time.

I worked on liquid gases and solar cells but also lent a hand with other more mundane tasks like raking the gravel pits in aircraft arrester trials, sitting in a bobsleigh during wind tunnel tests and rushing out onto the runway to measure aircraft landing brake temperatures. I also used to run to the computer department clutching piles of computer cards just in time for the next run. After the run it was a dash to change a couple of cards and get back in time for the next run. My greatest claim to fame however was probably being a factor in Mechanical Engineering department being renamed Engineering Physics after making my case to the head of department, Haydn Templeton, that we were much more than just a mechanical engineering set up.

After five years I moved on for nearly twice the money and the cut and thrust of industry. At RAE we never called our superiors by their Christian names and it took me many years to get used to the informality of industry in this respect.

W G JENKINS

Brick No. 571 in Square 35





Mr William Jenkins' 43 year association with the RAE started with his apprenticeship in 1940. In 1944 Bill volunteered for Fleet Air Arm training which, after an initial period at Swindon, led to a posting to Indiana, USA. At the end of hostilities, a little over a year later, he returned to the RAE to work on gas turbines and the Claudel Hobson carburettor.

In 1948 Bill joined Inspection Department, and 3 years later was promoted to Tech 3 in Standards.

Room work and metrology. In 1954, following the first Comet disaster, he assisted in the task of investigation and the subsequent pressure cycling tests.

In 1955 Bill was promoted to Tech 2, with additional responsibility for gauge control, and introduced the gauge control system which is still in use today. Mechanical inspection was added to the list of Bill's areas of expertise when, in 1967, he was promoted to T'ech 1, later regraded to PTO II.

After 10 years of service in this area he was transferred to Engineering Training Division as Senior Instructor (Mechanical), where his work included co-ordination of the Tom Nevard award. Bill was promoted to PTO I in 1980 and served for a year in 'A' Division of Workshops Department, responsible for the manufacture of radomes for the Skyflash missile.

He was then transferred to Quality Assurance Services as Senior Quality Officer, where he made a significant contribution to the setting-up of the present quality assurance system which allows the RAE to undertake design and manufacture work to Defence Standard 05-21.

Bill was also a committee member of the Farnborough and RAE Self-Build Housing Association. To mark his retirement Bill was given a pair of binoculars and a 'Tiger Moth' plaque by his friends and colleagues.

D S JENKINSON

Brick No. 740 in Square 18



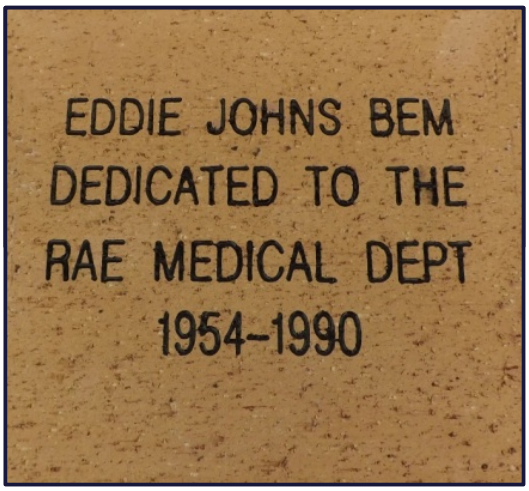
Denis Sargent Jenkinson, “DSJ” , Continental Correspondent of “Motor Sport”, “Jenks “ to his friends, had a brief career at RAE. He was directed there during the war straight from his engineering studies at the Regent Street Polytechnic (together with his great friend, Bob Newton, who unlike Jenks was to stay there for the rest of his working life)

Jenks worked in “Engines” but aircraft engines never stirred his heart. His passion was for motor cycles and cars. He hired a lock-up garage on the Farnborough Road - where it is rumoured he also slept – and spent most of his energy working on any worthy bikes or cars he could lay his hands on at the same time assembling a collection of miscellaneous spare parts useful to his frustrated motoring friends.

As soon as the war ended he left to begin a picaresque life following the motorcycling and car racing circus on the Continent. His days at RAE may not have added much to the war effort but they shaped the rest of his life. As well as friends such as Charles Bulmer and Joe Lowrey who both later had a career in motoring journalism he had met Bill Boddy who even then was editor of a “Motor Sport” reduced to a few wartime pages. They were birds of a feather - a combination - and that led to Jenks becoming not only more prosperous and respectable but also a writer on Grand Prix racing who commanded an international following.

Eddie JOHNS B.E.M.

Brick No. 689 in Square 34



20th January 1930 – 1st March 2013

Eddie or Johnny as he was known to many at the RAE, grew up as part of a large family of seven children in Whitstable, Kent. As a teenager he became seriously ill with a perforated appendix and Peritonitis which lead to a lengthy stay in hospital. This experience changed his life as it was during the time he spent in hospital watching the doctors and nurses going about their duties that he developed his lifelong love of the medical profession.

National Service bought Eddie to the Farnborough area in 1947. He joined the Royal Medical Corps at seventeen and was posted to the Queen Elizabeth Barracks in Church Crookham. It was here that his real aptitude for nursing started to show. His Soldier's Release Book contains this glowing report from the commanding officer 'An honest, hard worker who shows an unusual enthusiasm for his work. Always pleasant and cheerful with a humour of considerable subtlety. Will make an excellent nurse'.

Following de-mob he took a post as a Medical Orderly working in the Casualty Department at the Cambridge Military Hospital in Aldershot. From the Cambridge he moved to the Medical Department at the Royal Aircraft Establishment. This was the start of a long career which spanned over 40 years during which time he met and married his Wife, Rita.

Eddie worked in the Medical Department as a Surgery Man treating patients, attending road accidents and air crashes, driving ambulances and providing emergency medical services at the Airshow. After a promotion to Senior Medical Orderly he was put in charge of the Treatment Room and also became the Senior First Aid Instructor for the Establishment, providing First Aid Training for many who worked at the RAE and its outstations. First Aid was very close to his heart and much of his spare time was devoted to lecturing First Aid to St John Ambulance.

Eddie retired in May 1990 at the age of sixty after a long and happy career. His dedicated service led to the award of three medals: The British Empire Medal in 1976, for long service, the Imperial Service Medal in 1990 and The Order of St John in 1992 for long and outstanding service. Being a very modest man, not many people know of these well-deserved awards, but he was rightly proud of his achievements as are all his family.

Eddie was a very well-known and much loved character at the RAE. His kindness, cheerful banter, practical jokes, and terrible joke telling endeared him to everyone who met him. He was so proud to have worked at the RAE and would be honoured to be included in this book.

G A Don JONES

Brick No. 222 in Square 39



S APP 1964-70

Possibly the very last RAE Student Apprentice, having failed part II of my degree course I continued to an HND but was not then eligible to be a Student Engineer, my apprenticeship was extended by a year to complete the first C(ENG) exams.

Did all the things that apprentices do, getting all sorts of workshop jobs past inspection, experimenting with materials, space telemetry, helping with radar trials, shovelling sand in the foundry etc., ended up configuring and maintaining the flight simulator in Flight Instruments, who were then looking at the P1127 (Harrier) transition displays.

Secretary of the Apps Hostel residents committee, answered to the Head of Establishment for the “damage” from the initiation water event, and why Apprentices were responsible for 90% of all “uncertified sick leave” as soon as it was introduced. (5 days each year x 5 years = 30 days extra leave if you get started quickly). One of the “materials” men for the Rag Committee, and the last Treasurer as Rag weeks became less socially acceptable.

1970 left for Redifon Flight simulators, designing ancillary systems for Boeing 707, 737, 747 crew training simulators and for the Phantom F4K and F4M simulators for the RN & RAF.

This led to EASAMS, then “Elliot Automation Space and Advanced Military Systems”, and the initial Avionic Flight trials for Panavia200 /MRCA /Tornado. I was responsible for the ground replay system for the Buccaneer flying test beds.

Change of discipline when I joined the fledgling Digital Equipment Corporation, and the early days of Software Services. An expert in PDP11 RSTS/E and other operating systems, I installed the very first VAX 11/780 outside of the USA. An exciting period of very rapid growth in computing, then onto Customer services and IT operations for Norsk Data during its heyday in the mid 80’s.

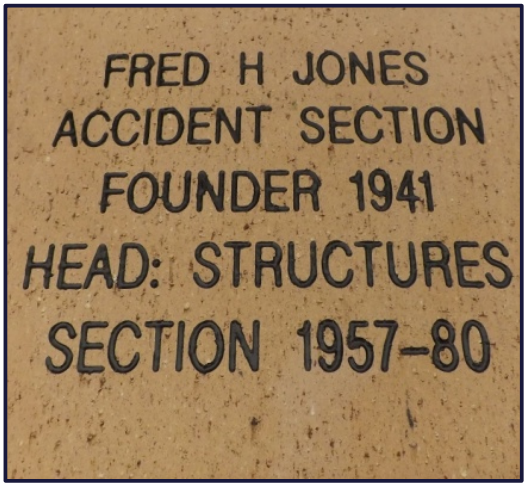
Another change of discipline when I joined Racal Vodafone at the start of the cellular radio story. Spent the next 12 years developing all those data add-on’s to basic mobile voice telephony services.

RAE Farnborough made me who I am, and as well as the usual avionic developments, like Tornado, has directly led to the development of mini-computers, personal computers, Software and Customer services (now all referred to as “IT”), cellular radio, cellular data (especially SMS or “Texting”), GPRS and 3G.

It appears that “Sleepy Valley” was more productive than one might have expected

Fred JONES OBE

Brick No. 322 in Square 39



I haven't written much about the greatest man I ever knew – simply because if I start I fear that I would not be able to stop. As such I hand over to the tribute from The Times. This report, a montage of information published by the broadsheets upon his passing. This is from The Times, and a few other additions.

In a career of 50 years at the Royal Aircraft Establishment, Farnborough, during which he became an expert in wreckage analysis, Fred Jones was involved in some of the most important accident investigations of the early years of jet-powered flight. Among his most telling assignments was the leading role he played in the intensive investigation that followed the — at first seemingly mysterious — series of Comet disasters of the early 1950s, events which gave the death blow to Britain's hopes of leading the world in civil aviation.


Obituaries

FRED JONES

Wreckage analyst who was involved in important investigations in the early years of jet-powered flight

Before that, Jones had studied the fragmented remnants of the swept-wing, twin-boom DH110 prototype, and his findings enabled the aircraft to be modified in such a way that it was subsequently able to enter service as the Sea Vixen naval fighter.
During the 1952 Farnborough Air Show. When he saw the aircraft pitch violently upwards, he already had some idea of what might have happened to it, even before getting among the wreckage. His investigation confirmed that the skin of the leading edge of the wing had separated from it, causing the plane to rear upwards with such violence that the engines broke from their mountings, ripping their way out of the fuselage and ploughing into the crowd. It was a catastrophe that claimed the lives of 28 spectators, as well as those of the pilot, John Derry, and his navigator, Tony Richards.

Fred Jones was born in 1920 in Cove, Hampshire, within earshot of the roar of engines from nearby Farnborough. Educated locally, he left school at 14 to join the Royal Aircraft Establishment as an apprentice. In 1941, at the end of his apprenticeship, he became a member of the newly founded accidents section at RAE, thereafter working as a “disaster detective” on cases occurring both in Britain and abroad. At RAE his habitual place of work was the “Aeroplanes’ Graveyard”, three sombre black hangars to which the mortal remains of crashed aircraft were brought from all over the world for reconstruction and examination.

The war provided a flood of work for the new section. Jones’s first assignment was to investigate the reasons for the crash of a Stirling bomber. But the age of high-speed and hypersonic flight was just around the corner. The jet age brought stresses to aircraft skins and airframes that could scarcely have been envisaged in the era of the piston engine. In early 1944 Jones worked on the first Gloster Meteor (Britain’s only operational wartime jet fighter, though it never saw combat) to crash. Later, the remnants of the V1 flying bomb, and the V2 ballistic missile, came under the scrutiny of the section, as Air Defence of Great Britain — as Fighter Command had been renamed in June 1944 — sought solutions to these terrifying new weapons.

In the early 1950s, with Jones now in a senior position in accident investigation at Farnborough, his department was soon to be confronted by RAE’s most serious challenge. No problem to hit British aviation was to prove more damaging than that which dogged the Comet, the world’s first jet airliner, in 1953 and 1954. On May 2, 1952, BOAC had inaugurated the world’s first passenger jet service, with flights from London to Johannesburg. Travellers who experienced the smooth, swift and and silent ride at 40,000ft declared that they would never return to lurching through storm clouds at half that height in noisy piston-engined aircraft, which took twice as long to reach their destination.

The British aircraft industry seemed to have stolen a march on America and to be on the way to complete domination of the civil aviation market. Then, on May 2, 1953, a year to the day after its introduction into airline service, a Comet broke up in the air during a thunderstorm over Calcutta. On that occasion the storm was blamed for the aircraft’s structural failure. On January 10, 1954, a second Comet apparently disintegrated in mid-air and disappeared into the Mediterranean Sea off the isle of Elba, 20 minutes after taking off from Rome.

Yet after this second crash, the type was put back into service after modifications. The decision was a source of deep unease to Jones, who found it incredible that service could be resumed after two such serious accidents whose cause was simply not known. “But mine was a lone voice in the wildrness among all the experts,” he was subsequently to say.

It was to take a third crash, on April 8, 1954, this time of a Comet flying from Cairo to Rome, before civil flights were suspended indefinitely and RAE’s accident investigation team was ordered to swing into action. While one of its teams took an entire Comet fuselage and subjected it to fatigue tests in a huge water tank, Jones headed another team examining every single piece of the wreckage that had been retrieved from the bed of the Tyrrhenian Sea, north of Sicily.

This operation eventually established that the pressurised fuselages of the Comets had simply burst as they climbed to cruising height, weakened by repeated pressurisation and depressurisation. After examining the fragments, Jones's team noted that the fuselage had started to crack at the corner of one of the automatic direction-finder aerial cutouts. Meanwhile, the fuselage testing team found that cracks developed at the corner of one window and rapidly spread throughout the already dangerously fatigued structure.

Such fundamental discoveries meant that the Comet had to undergo radical redesign of many of its features, a process that enabled Boeing to overtake De Havilland in design and production. By the time the new Comet 4 went into service on the transatlantic route in October 1958 the technically superior Boeing 707 was ready to capture the world market, as it did from its introduction only a month later.

Among Jones's other aircraft investigations was that of a Handley Page Victor bomber, which mysterious disappeared on a test flight over the Irish Sea in August 1959. On that occasion it was impossible to be certain about the precise reason for the aircraft's destruction. Evidence pointed to the failure of a pitot tube, resulting in the involuntary extension of a Mach trim strut, causing a dive at more than Mach1 into the sea.
Jones also investigated a number of non-aircraft structural disasters. Notable among these was the collapse of a box- girder bridge, while under construction, at Milford Haven in 1970. Jones's findings led to a rigorous reappraisal of the structure of such bridges, both in this country and abroad.

Jones was appointed OBE for his work in 1980. He retired as a principal scientific officer in the airworthiness division of the structures department at RAE in 1985.Jones had always been a keen shot, and was a member of the National Small-Bore Rifle Association. He often shot at Bisley. Among his many prizes was the Hampshire Small Bore Rifle and Pistol Association trophy for 200 yards, which he won in 1976.

His book Air Crash: The Clues In The Wreckage, was published in Hardback by HALE, and softback by COMET.

Fred Jones, OBE, aircraft accident investigator, was born on September 4 1920. He died on August 22 2003, aged 82



Fred Jones OBE on the right

Myra JONES

Brick No. 147 in Square 15



Arrival at RAE July 1943

In April 1943, while preparing for examination in June for a degree in Double Mathematics at University College London. I was interviewed firstly at The University and then at a Government Office with a view to determining where I would make the most useful contribution to the War Effort. In early July I received a formal letter instructing me to report at the RAE the following week for duty in Aero Dept., I duly obeyed, armed with my letter.

The Head of Aero Dept., then Dr. G. P. Douglas, was away on outside duty. No-one in his office was aware that I was expected. I was repeatedly asked if I had not come for interview rather than to start work, but the instructions in my letter were explicit and were eventually accepted. The Deputy Head decided to send me to the High Speed Wind Tunnel (HST), a new and highly advanced facility not yet fully commissioned that would need more staff when it became operational.

The Head of HST, then Dr. A. Thom, greeted me with the words “We don’t want you, you know”. Then followed a week of utter bewilderment, sharing a trestle table for a desk, helping read portions of film recordings of dials, manometer tubes etc., doing all pieces of computing with a slide rule. All further complicated by the fact that no arrangements had been made for living accommodation and a clerical lady taking compassion on me and taking me to her home as a temporary measure.

The next week brought firstly the recovery of plans to have allocated me to Stability and Control Section where my mathematical training would have been more useful, secondly the return of the Head of Aero Dept. and thirdly discussions at senior level to which, of course, I was not party. All I knew was being informed by the Head of HST that I could not now be spared! So in HST I stayed.

But it was not long before I began to learn something about the difficulties of the overall situation and to gain increasing respect for these Heads of Dept. who, despite these problems, were doing a magnificent job.

Tony KARAVIS

Brick No. 33 in Square 16



My career at RAE started in 1959, fresh from school with four A Levels. Initially I was sent on an induction course at the Technical College, where I learnt a few workshop skills, useful in my work within and (importantly!) outside the Establishment. Following that I obtained a Physics HNC with endorsements in Physics of Solids and Solid State Physics. My first position was working as an Assistant Experimental Officer in the Flight Instruments Section under Arthur Bone in Instruments and Photographic Department, later to become Avionics Department, followed by several changes to title that merge into a haze of three letter acronyms. The bottom line is that I spent my whole career involved with aircraft flight systems, which ultimately give the pilot what he needs to fly the aircraft and complete his mission.

Initially I worked on OR946, which was the first Integrated Flight Instrument Display System destined for Lightnings and Buccaneers and a few Naval Hunters. I rapidly became familiar with electro-mechanical servo systems, suck and blow flight instruments, ie altimeters, airspeed and Mach instruments. I spent many an hour calibrating said instruments using high accuracy barometers and manometers.

Moving on to my first involvement with helicopters, I was responsible for the flight trials of LASSIE (Low Air Speed Sensing and Indicating Equipment) which used a swivelling pitot static tube to allow the local air pressures to be measured in the rotor downdraught. This was fitted to a Scout Mk1 helicopter. In order to calibrate the device, the pilot had to fly a straight course at a height of 1000ft, passing over a camera obscura, a ground based optical sight, at different indicated airspeeds. Concurrently the scientists below plotted at one second intervals the helicopter, and a smoke puff from a cartridge fired from a Very pistol by yours truly on board the helicopter. From these measurements the ground speed of the helicopter and the ambient wind speed could be calculated, and thus the actual airspeed of the helicopter could be calculated. The equipment was eventually fitted in various United States helicopters, notably the Apache.

There was a requirement to refit all RAF aircraft with height encoding altimeters as Mode C of aircraft identification transponders. To accomplish this, a suite of new altimeters was developed by industry. To meet the accuracy requirements a pressure error correction unit, customised for each aircraft type, was produced. In order for the correction characteristics of each aircraft type to be designed; my task was to obtain the best fit for the correction algorithm and to liaise with the firms developing the hardware.

As there was interest in noise reduction and safer take offs, we initially developed a Take Off Monitor, which calculated the aircraft acceleration and distance travelled along the runway and was evaluated in a Varsity. A cine-theodolite situated on SBAC Hill tracked the aircraft progress along the runway to calibrate the on board measurements. A Take Off Director was developed and flown in Hunter T Mk12 XE531, one of the first aircraft equipped with Head Up Displays. The pilot had to keep the flight director symbol centred in the display to maintain the correct climb out speed with full throttle. Given the engine power available in the Hunter, some

spectacular take offs were performed. Having recently qualified as a Cat B FTO, I was the Flight Test Observer.

Moving forward, in response to AST610, a programme of research was conducted into the possibility of using passive night vision systems to allow a pilot to fly low level (250 ft) at night. Hunter T Mk7 WV383 (HECATE) was equipped with HUDs, a Head Down Display, the required data sources and avionic system to evaluate such operations using daylight and low light TV systems. This major refit was conducted at Cranfield. Once the systems were installed and tested in the aircraft, there followed a programme of flight trials over several years. I was the Aircraft Trials Manager, controlling the trials, ensuring that the experimental equipment was ready for flight, briefing the pilots and looking after the trials log etc. The team were few in number but high in technical ability, none more so than Fred Baggs who managed to fly more sorties than any other person, including aircrew. Since we were trying to fly in an unfamiliar regime, we had to obtain special clearances from the RAF Flight Safety Branch. Put simply, the risk was that at night we might fly into a mountain as the pilot wouldn't see it, but our argument was that as we could see the mountain on the TV we could avoid it! However, the conflicting opinions were resolved by installing a radio altimeter with a low height alarm and a programme of incrementally lowering clearance heights was agreed.

Having established the feasibility of the concept, the aircraft was test flown at RAF Laarbruch in a series of flights using squadron pilots to prove beyond doubt that it could meet the requirements of the AST. *(Ref: FAST Monograph – HECATE -Research to Retirement 1971 to 1998, Vol 1 Cockpit Displays and TV 1971-1980)*.

After a reorganisation of the Department, the powers that be decided that I ought to widen my experience and get involved in commissioning a helicopter Flight Simulator. Mounted on a three axis motion system it represented a Lynx. In order to understand better how helicopters worked, I was offered a short flying course at Fairoaks Airfield, where I learned to fly a Bell 47. I was also given the opportunity to join an Army Air Corps (AAC) squadron on a NATO exercise in Germany. Living under canvas in a field where Lynx's and Gazelle's were operated in similar fashion to a car pool, I realised what it meant to design equipment to be boot proof. Having said that, I have nothing but admiration for the skill of the aircrew operating in a very demanding environment.

I provided technical support to the MOD in the procurement of new helicopters such as EH101 and Lynx replacement. On one occasion I had the pleasure of flying in the cockpit of a helicopter from Battersea to Greenwich over the Thames. My next career change followed my promotion to Principal Scientific Officer leading a section developing advanced cockpit displays, helmet mounted sights and displays. I was the RAE representative on an AGARD Working Group on cockpit technology, which involved scientists and specialist industry representatives from other NATO nations at regular meetings throughout Europe. I also ran an RAE/AAC working group on helicopter cockpit systems.

Apart from work, the RAE gave me the opportunity to enjoy extramural activities. I spent many happy years at the Sports Ground with the RAE Archery Club, practising two evenings a week and shooting competitively most Sundays during the summer. My other passion was playing my cornet in the Omega Jazzmen, a band made up of musicians from within RAE. I eventually led my own band, The Excel Jazzmen, for over 35 years, playing in Jazz Clubs and at Jazz Festivals.

As retirement beckoned I was offered promotion to SPSO but declined as I had several calls on my time outside the fence. During my career at RAE/DRA/DERA I have always been fortunate to have met and worked with people who are exceptional in their knowledge, skill and friendship.

Tony Karavis
16 March 2025

Tony kept in touch with his fellow scientists who all trained together through the late 1950's. They formed the Group 57 Club, since most joined in 1957, and enjoyed regular reunions throughout their careers. The last reunion was held at the FAST Museum in 2017 when a group photo was arranged by Bob White. Both Tony Karavis and Bob White are commemorated in the Brick Story for Chris Law.



WV383 with Tony Karavis, Sqn Ldr Vic Lockwood and Fred Baggs



Tony Karavis in WV383 at FAST Aug 2016

Ian KEEL

Brick No. 305 in Square 5



I came to the Royal Aircraft Establishment via an Admiralty apprenticeship at the Royal Naval Air Yard Fleetlands, Gosport, Portsmouth Dockyard School, two years National Service in the R.A.F. and six and a half years with Handley Page in Cricklewood, North London. When I realized that HP were being squeezed out of the aircraft industry, I started applying for jobs in all directions.

After due process, towards the end of 1963, I moved to Farnborough and started work at the RAE I had no idea which post or job I had been accepted for as I had applied for several through various ministry addresses. I was employed in the vibration laboratory of Structures Department as an Assistant Experimental Officer. It was the time of the transistor, and a research programme had started at the RAE to develop equipment, utilizing the new electronic advances, to reduce the time required to record and analyse the vibration profiles of new, or modified, flying structures;. a process needed towards the clearance for flight certification. The aim was to attach vibrators and transducers to the subject structure and use the newly developed electronics equipment to seek the natural frequencies and log them. A piston Provost aircraft was used as a specimen structure to which the experimental equipment could be attached, and all housed within R132 building. David “Gauk” Gaukroger, Collin Skingle, and Fred Hawkins were the brains behind the theory. “Gawk” proposed calling the equipment “Automatic Resonance Seeking Equipment”, but this was rejected by management, so it became “Ground Resonance Automatic Multi Point Apparatus” (GRAMPA). Around this time Dr. Beeching was causing changes to be made to the railways to improve efficiency, one plan was to speed up freight traffic. It so happened that Dr. Beeching visited the R.A.E. and was shown our lab. Gauk had been forewarned and had borrowed some rails and freight trucks from a child's train set These he had set up on a board with a slight gradient When the director with guest stopped to look Gauk released the trucks and they slowly increased speed and promptly fell off the track. Gauk explained that the trucks had a very low natural stability limiting speed, due to their short wheelbase, and if Dr. Beeching intended to speed up the present freight wagons there would be derailments. The director and guest moved on in silence. A new structures test site was being built at Ball Hill, mainly to house part of the thermal cycling, strength and fatigue test rig for the Concorde aircraft structure. During lunch breaks a major table tennis tournament had been fought in R132; would there be space in the new noise and vibration laboratory to continue the battles?, and, if so, how could we transport the table? We soon had the answers. Yes, and yes. Two of us borrowed a handcart and pushed it with the table on top to our new venue, where the tournament continued.

On the 6th of June 1966, H.R.H. The Queen officially opened the site. I manned an exhibit to demonstrate the flexure of a metallic plate with forced vibration and the visualization of the shape by the use of a stroboscopic lamp.

Sharing the lab with the noise section introduced me to some more interesting characters. Head of them was David “Di” Webb, a firecracker Welshman, who managed to obtain approval to

hold noise data research tests at Pendine Sands during one summer, and another series of measurements off the coast of Cornwall another summer. Most of his section had caravans with families holidaying in the near locality at similar times. Another of “Di's” team was a Lancashire born mathematical genius, Ken Herron, who did experiments on the R.A.E. Comet fuselage boundary layer noise by drilling small holes in the skin and listening with small microphones. Ken's work led to noise cancelling headphones and later to flat loudspeakers.

One day I was summoned to the head of structures office. He explained that there was a considerable amount of additional work for the stress office in Q1 Building, and that he had been looking through some of the departments personnel files to try to find a possible candidate to help in the stress office, and he was surprised to find that I was the only person with aircraft stressing experience (flattery before asking a favour?). I agreed to help out provided there was a signed agreement that the secondment was for one year, (which became fourteen months). This proved an interesting time working for “Joe” Gandy. Joe was a brusque but very able engineer from Preston. He had been an apprentice with the local bus company, had taken evening classes and worked hard, he really knew his theory and practice. One theory he held was that all tyres should be inflated to 45psi, and to accept a lift in his car was quite an experience, apart from his routing with the minimum number of right turns and his newfound language aimed at any thing that moved before he had passed it. During that year (1966-7) I worked on a Hunter that was fitted with quadruplet controls as part of a ‘fly by wire’ trial, a Canberra that took part in Martel trials in Australia and redesigned the separation bay on Black Arrow to stiffen the structure and reduce the weight. During this time I met Jim Sedgewick in the space department Jim was also an ex dockyard apprentice, but when he did his apprenticeship it was war time, and as he lived in Gosport and had to cross Portsmouth harbour by ferry to go to and from work, the journey was often extra hazardous. When the fourteen month “year” had passed I returned, not to my previous post, but to Airworthiness Division (MS1), Materials and Structures Department, at Ball Hill).

Soon after; while visiting friends in the village in Dorset where I grew up, Glanvilles Wootton, or, in the local dialect, Grannies ootten, I was told that the son of my old school teacher worked “up there in Farnborough”. Why had I not noticed it before? The name Sobey should have been enough but Mrs. Sobey's walk, from here house by the cross roads down to the school was enough to stop play and bring order where there had shortly before been skipping, cowboys and Spitfires cavorting around. Adam, or John as I had known him had an office on the floor below, so I paid him a visit. His brother had died in a motorcycle accident in the village and they had not returned since. His mother was living with him and his family in Hindhead. Another of my colleagues, Handel Hall had friends living on the coast in Dorset, and occasionally spent days with them. After one particular Bank Holiday I asked Handel if he had been to see his friends, he had, but they had moved. “Where to?”, “Oh you would not know it, it's in the middle of nowhere, it's called Glanvilles Wootton”. I knew the very house, a converted pub ‘The New Inn’.

The head of the Division was Richard Starkey, big boned imposing man, a strong swimmer and water polo player. The deputy head of the department was Michael “Mike” Henwood, a very pleasant friendly gentleman, who summed up some of the work of the division as a ‘Cradle to Grave’ service for the Ministry. He also explained the overall reason for MS1 was to support the selection, production, introduction, use, operation and safe use of all flying structures, take part in relevant research programmes with Industry, and other Ministry bodies, and in short, advise and support all structural airworthiness matters to which the taxpayer had willingly, or otherwise, subscribed. This extended from the “Battle of Britain” flight to future military aeroplanes and weapons, from civil airliners, through the CAA to space vehicles and components. My initial post was to learn, from Vincent Egan, some of the ‘art’ of structure mass estimation. Though I knew my way around aircraft structures and stressing actual components, I found it difficult, at first, to convert outline drawings to material with mass. With slide rule, log book and blocks of computing paper Vincent, with patience, guided me into the “magic

circle". One of the first jobs was the mass assessment of the structures of the BAC 311 and Airbus A300. A limited amount of the Concorde structure also received Vincent's attention. Then came the M.R.C.A. (eventually Tornado). The selection was from a number of countries submissions with combinations of single seat, twin seat, single engine, twin engine, fixed wing, variable sweep wing. Quite a list to work through. During this time we had contact with a number of foreign companies, and we soon came across an interesting anomaly. While we had to convert from Natures own engineering units of imperial measurement to SI, there seemed to be a variety of units used in quasi SI systems, which at one time led to a factor of 10 error, which was not ours, but found and highlighted by Vincent. It was interesting to note that at B.A.C. Warton the office doors had signs with the pressure needed to open them measured in Newtons. An excellent way of getting a feel for SI units. Around this time the U.S. produced an "airplane" which they tried to sell as the standard N.A.T.O. fighter/light bomber. A number of military pilots were invited to fly the demonstration aircraft, R.A.F pilots were told to reject such invitations. We worked well with B.A.C. Warton and when their were differences they were soon resolved.

One puzzle turned up that neither party could explain, and due to our mutual respect and trust were able to discus openly. We both had official data of what was to become the F16, but could not calculate similar mass or performance figures to those claimed. We could not check dimensions, equipment fit or actual mass. We decided to try to scale photographs or any other means and compare our findings. We collectively came to the conclusion that the flying demonstrators were not full size and were devoid of much equipment. The design service life was 3000 hours, not 5000 as required by the R.A.F., though the difference would only add about 30Kg. As the organizations were formed for the bodies needed to produce the M.R.C.A, it was necessary to hold meetings at different working levels, and our head of department went to Munich to discuss structural airworthiness matters. One evening the German hosts held an evening meal for the visitors, and served roast beef. The head of the host party was proud to welcome the English and point out the relevance of the meal by declaring that it was "the meat of the bullock". Richard Starkey drew himself up and dearly corrected that "that sir is the difference between bulls and bullocks". As the project progressed, personnel were requested from the national partners to fill jobs in the offices in Munich, I, unsuccessfully, applied. Too useful at home I assumed. Several of my colleagues did make the temporary move. One of the old hands, who must be nameless, took his caravan and parked it on the building site that was to be the Olympic site of the then coming games. He resided there freely for the duration of his stay and was never asked for identification or what his business was. A 'nice little earner,. Stories of the exploits of the Brits in Munich abounded, mostly from schemes to squeeze the last penny, Dmark or lire from the legitimate expenses claims and beyond. For example an arrangement with a local travel agent for cut price week end flight tickets to London and return. An other of a more adventurous nature was of two ex M&S department members, buying an old FIAT 500 to drive on 'outside duty' from Munich to Turin, in winter. No doubt there are many more tales, some which must remain restricted, confidential or secret.

There were a number of retirements from the division, some new members, and sadly some deaths, one being Vincent Egan. Vincent had only shortly before been promoted to P.S.O. long overdue. He was highly respected throughout industry and the ministry, as witnessed by the number and stature of the attendees at his funeral. One of his, then current, projects was the structural additions and changes to the Nimrod airframe, to convert it to an A.E.W. version. Part of the major additions were large radomes on the nose and tail. The structural additions and modifications for the electronics work, was partly carried out at a site in Hemel Hempstead, where the project engineer was an ex Handley Page colleague of mine. It would have been more expensive and probably introduced extra problems if full size radomes were made for structural testing, so representative segments were constructed with R.A.D.A.R. transparent composite skins and special foam core. These were taken to Hatfield where H.S. had a 'chicken gun'. This was a facility to test all manner of structures for damage from impact with whatever object one chose, for example, railway engine windscreens and house bricks, aircraft parts (undercarriage

legs, flaps, slats, leading edges and of course windscreens and radomes) with birds. On my first visit to Hatfield I was shown some film of early bird strike tests and warned not to choose the chicken dishes in the canteen, (Hatfield joke). One film shown was of the test on a forward fuselage section of the Comet jet propelled civil aircraft. The test took place on the Thames estuary marshes, M.O.D. site, and had a rail track several hundred yards long. Mounted on the track was a wheeled carriage with a Comet fuselage, from nose to about a little before the wing leading edge, and behind this was a rocket pack. At the end of the count down there was a cloud of flame and smoke and the vehicle accelerated down the track to possibly 200 m.p.h. As the camera tracked the action and the smoke cleared it revealed the unbelievable sight of a simple rough wooden gallows with a limp Gull hanging by its neck, non the worse for the recent mass attention. If only to save expense the test had to be given more thought. When I was shown the test site and had the timing etc. described I was told that a local farmer bred a specific type of chicken that weighed close to 500 grammes, or 1lb., the weight being easily adjusted by the addition of clay. When I was shown these chilled birds I had quite a shock, as they were the exact same colouring as our Abyssinian cat! I have often been asked why Sainsbury's frozen chicken could not be used?, there is no suitable answer. It soon became necessary for a material upgrade to be made to the specimen that were made at B.A. Woodford. Those not obviously damaged beyond use, were taken to Boscombe Down, where they were put in front of a blower rig. This was originally powered by four Merlin piston engines, but was found to be more efficient with two engines running. When subject to this test the radome segment skin soon collapsed and needed further development.

By the time the testing programme had evolved a radome segment that would not become a hazard at take off speed, when impacted by a 500 gramme bird, the A.E.W. Nimrod project was cancelled.

My old H.P. colleague at Hemel Hempstead had now lost his job and had to clear the site. He phoned me and said he had a drawing, with my name on it of an electric blanket, did 1 want it? This electric blanket was one of the first jobs I had at Handley Page Cricklewood. The Victor bomber had to be capable of being dispersed to cold places, and be capable of starting at short notice. The idea of the blanket was to keep the batteries warm enough to provide power to bring the aircraft to life. When H.P. closed the responsibility to service and maintain the Victor passed to the old A.V. Roe at Woodford. The appropriate H.P. drawings also went to Woodford where the blanket was soon seen as of use on the Nimrod aircraft, hence the route to Hemel Hempstead.

Many side jobs came my way, and at times it seemed that I was being fired at from all sides A businessman from Southend-on-Sea had persuaded the Welsh Development Board to invest money and a site to mass produce a plastic framed, cling film clad powered micro-light recreational plane for export, mainly to California. My head of division then was Roy Maxwell. He had been to a meeting in London and during a coffee break had been approached by a person who told Roy that his department had been approached for funds for a small aeroplane and would like to have some one look over it as it was our sort of thing. Roy accepted and passed it on. I was given some details, and made a few phone calls to our colleagues in materials. Their reactions, those printable, suggested that in the Californian desert sun fight the pilot might probably land it but could watch it disintegrate. The F.A.A. might also have an opinion.

Another stemmed from a phone call from an admin officer who had uncovered a 'stash' of concrete bombs. They were WWII practice rounds and appeared in good condition except for a metal plate with two rapped holes, which were rusty and appeared to have cracks radiating out I consulted our friends in attack weapons and they obtained some data. A few measurements and calculations convinced me that they would be safe if the concrete was considered one piece and airworthy. One request was for a member of parliament who wanted to know what weight of copper wire there was in a typical Buccaneer aircraft (?). Another, more interesting job I did was for Chris Peel of the materials area. He had invented and had patented a process that

permitted the addition of lithium to be safely alloyed with aluminium alloy. From there he had, in association with an aluminium manufacturer, produced two alloys that had basic properties similar to the two major alloys used commonly in aircraft manufacture, except that with the addition of lithium the alloy was several percent lighter and was slightly stiffer, ie. a higher Youngs modulus. Composite material, mainly in the form of carbon fibre, was being explored as suitable for future major flying structures, and in common with Chris I had my doubts about the figures being claimed for mass savings. An excellent chance arose to make a meaningful comparison. Warton had been awarded a contract to design a composite wing for the Jaguar. It was to be the same dimensions and geometry. The exercise was to be in three parts, firstly manufacturing of components and assembly, the second to manufacture a test specimen, and lastly build a flight ready wing. The first highlighted that assembly with such stiff material was not easy and much shimming had to be used in order to try to pull it all together: The lessons were learned and the second wing was assembled and subjected to a structural test routine. The third wing, as far as 1 know, was not built, but there was enough data to use for mass comparisons, and with the official weight statement (Form 2492) and my calculation of the wing in the lithium alloy, we were sure that we were within a two percent difference of the composite wing mass. If we had also used the advantage of the increased stiffness and increased the spacing of the ribs the lithium alloy wing would have been superior, and could have been manufactured on similar jigs and fixtures to the conventional wing. Chris her became Professor Peel.

As time passed and the recalls and papers accumulated, the division had built up quite an archive. Peter Adams became our head and decided that we should have a ‘Spring clean’. As required, we set aside Fridays, or part of, and took to work suitable clothing; so that we could sort and scrap papers and possibly find some of interest to Brian Kervel in the library. I seemed to have inherited drawings, reports and weight statements going back many years. To name a few of the F2492s, there were the weight histories of large and small, little known and famous, for example the TSR2. Among the drawings were sane of Barnes Wallis’s Swallow a VG wing civil airliner proposal. Reports comparing the flight performances of the Spitfire and North American Mustang, Drawings and data of the AVRO 707 delta research aeroplanes.

I found the AVRO 707 papers late on a Friday afternoon, and would have put then in a black sack but asked Peter Adams if they might be of interest to someone. He told me that as it was getting late we should leave them, and go home. On Monday Peter came to my office and told me that he had just stunned a head of division of a weapons department, who rang him and told him that ‘they’ had found an airframe in Australia suitable for STEALTH experiments, and might we have any data on the AVRO 707. Peter of course played it well, and asked if they would like to visit and take as much from us as they wanted. Fate can play some funny games.

One example of the background to products. There were more than one incident of hook failures on the MACE weapon carrier on R.A.E. Tornados The MACE carrier was originally designed at the R.A.E. as a minimum aerodynamic drag carrier. The store hooks were very highly loaded and required a special double vacuum melt steel, a martensite steel manufactured under strict control. Denis Hayhurst of attack weapons asked if we could help. I was asked to liaise with one of Denis’s team and report back. We found it difficult to find background data or test reports such was the convoluted background. The R.A.F. appeared to be the only user, except for the Royal Navy, who used a highly modified type. We found that the Italians were carrying out a fatigue test on the wing carrier barrel that rotated as the wing swept backward or forward on the Tornado, and as part of the rig had a MACE airier We visited Turin and asked many questions, the answers to which were very useful in a number of ways. Our flight was on a modified BAC 1-11, from Filton. Overnight in Turin, next day to Munich in a snow storm, over night in a side street B and B in what had been a war time SS “hostel” near the main station, then back to Ripon, thankful that I had my feet on the ground again. We found that the hooks had been made as a batch from steel supplied by Krupp of Germany, the hooks being taken from store as required. The longer they were kept in store the more chance of a sudden

failure. As there was no likely material substitute we suggested that a relatively short life from manufacture to use be put on the hooks. The next step was to find a source of supply of this highly specialised steel, Krupp no longer interested in supplying it. A small specialist steel manufacturer existed in Wales, who insisted that their single vacuum melt martensmec steel met the B.S. specification, it also met the German DIN standard, they knew that as they had supplied Krupp.

I suspect that the aeroplane that gave me the biggest problem was a specific 'Beagle' B206, or assembly of 'Beagles' in one flying package. The test pilots school at Boscombe Down had a 'Beagle' airframe that had been modified to separate the flying controls of the two pilots, such that one had control, as intended, but the other could fly the machine via a computer that drove the control surfaces through electric motors with drums and cables. When the load in the cable exceeded a predetermined value a pin on the motor shaft would sheer; thus freeing the control. A large range of flying characteristics could be demonstrated by adjusting the computer settings, sensitive nervous, to lumbering one speciality being 'Dutch roll'. The record of the fatigue life of the structure was a nightmare, as a range of wings had been fitted. The whole thing was a dogs dinner A replacement aeroplane had been funded as a suitable demonstration tool was essential to the school. The replacement was an H.S. Hawk, modified by the aeronautical college at Cranfield. The request was far some assurance to extend the use of the Beagle until the replacement was ready: This was to be a low cost fix, as the T.P.S only wanted to have a 'few more hours'. I consulted our expert in loading strain gauging, and similar problems. To digress a little. John Sturgeon was widely known as the expert in flight control and load measurement, etc. When the Argentinians had problems with their FMA Pucara their asked for help and John Sturgeon was sent. The company were so pleased with the results that they presented John with a model of the Pucara with about 40 cm. wing span. At the start of the Falklands war the model was used for recognition use. Back to the Beagle. A simple short programme of flights with strain gauges attached and recording equipment, as recommended by John, and we had enough assurance to underwrite a modest extension of flight hours. Provided there were no more pins sheared than those that, from past experience, might have been expected. The young R.A.F. officer in charge of the T.P.S. soon after left the service and did commercial best flying. He lost his life testing a Dormer plane soon after.

There are many more stories behind projects, research Programmes, committee work and personal contacts, but they will have to be left out if this summary is to ever end.

Upon reflection it might seem that my path was set out for me. What started one day in the wilds of Dorset, when a small boy heard the sound of engines suddenly stop and saw the wreckage of a prototype Westlands Whirlwind aeroplane falling from the sky. The body of the New Zealand pilot fell into a Schoolteachers garden. Some ten or so years later, as an aircraft apprentice visiting the S.B.A.C. air show, with a friend, we were narrowly missed by two engines and the fuselage of a D.H.110 (Vixen). I am not sure of the chronological order of the next group We, my wife and I, were allocated an R.A.E house, overlooking the airfield and not far from the 'Dairy' gate. We had many visitors at airshow time. During practice for one show a pilot in an American helicopter appeared to roll it and the rotors dug into the ground, with a resultant crash. One time I was home sick. I looked out of the back bedroom window just as a Gloucester Meteor approached the runway. As it almost touched the concrete one engine began to speed-up. The Meteor reared up and cartwheeled clockwise along an almost horizontal axis and made nearly two turns before falling in a ball of flame. Later I found out from a colleague in MS1, who had been in the Air Accident investigation section at the time of the Meteor accident, that when the report was published there had been no eye witnesses, except me it would appear, which seems remarkable considering it was on the airfield and one would hope that both the control tower and fire staff would have been aware of the aircraft's presence. My office at Ball Hill looked out at an angle across the westerly end of the airfield. We often heard the army having mock battles in the woods and scrub around the area. One day I was working, head down, and heard a solid loud 'hump', followed by four shots in close sequence. My first thought

was that a ‘thunder flash’ had started an army attack on the airfield, but this thought was quickly changed as a bail of fire passed from left to right into the trees at the end of the runway. I later heard that a two seat Hunter was taking off and the engine effectively exploded and cut the plane in two, the four shots were the ejector seat cartridges firing Both pilots parachuted down within the airfield. Another S.B.A.C. show time we, in MS1, had a particularly busy schedule and very few had had an opportunity to visit the exhibits, apart from watching flying I had suggested that my wife with our new baby might like to walk along from where we then lived to South Gate where she could see some of the flying, and I would meet them on nay way home. I finished what 1 was doing and said, as it was Friday I would go to see my friends in the drawing office in Q1 building and try to see a little of the flying. It was a fine day but there was a stiff breeze. The French Atlantique aircraft, flying on one engine, passed from my right towards the Farnborough Road. As the Atlantique banked to port to start a turn it was obvious that it did not have enough altitude and the port wing tip hit the apex of the transport section sheds (?), it then fell sideways into the space that is now below the site of the F.A.S.T. museum, setting fire to the road down towards the police post at South gate. I was concerned that my wife was not there at the time. Thankfully she had not left home. One more, and I hope the last, disaster case, though this one is a more personal one. My wife is German and grew up in a small town just north of Hamburg. She went to school with the daughter, Gisela, of some family friends who had moved from the east. Gisela trained as a cartographer, but changed to advertising because of the strain on her eyes. She then met her future husband, Erich, they had a son and time passed toward retirement. A special wedding anniversary approached and Gisela and Erich Muller planned, and booked, a flight from their home in Hamburg to New York and cruise from New York back to Europe. On the way out they stopped for a few days with their son in Paris, and were then due to fly on by Concord, but they were just two of the number not to complete their journey as planned.

I would like to think that my working life experience of flying structures has been put to some use and may have contributed in some way, no matter how minor, in the improvement of safety in the air and maybe, beyond.

Margaret (Rita) KEENAN

Brick No. 878 in Square 9



Margaret went under the pseudonym of Rita, naming herself after Rita Hayworth, one of her 'silversreen' idols when she was young. She left school at the age of 14 and became a Messenger Girl at the RAE before going on to become a Telephonist at the Establishment's main Telephone Exchange.

She left to have me and bring me up meanwhile taking a part-time job as a Dinner Lady at South Farnborough Infants/Junior School while I was a pupil there. Joan Hicks (whose husband Bill Hicks worked as an Electronic Engineer in Structures Dept) joined her there a year later. Mum went back to the Exchange before I left and remained there until she retired, occasionally helping in the Bramshot 'Out Station'

Story by Mark Keenan

Peter David KENWAY

Brick No. 122 in Square 7



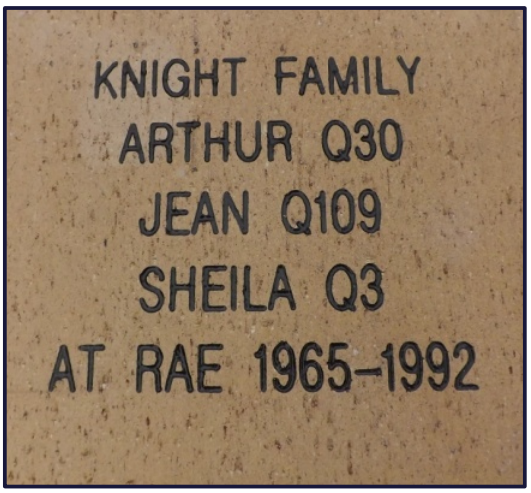
In 1954 I joined the Admiralty Signal and Radar Establishment, Portsmouth as an engineering apprentice but within a year I realised that the range of engineering experience available to me there was limited and that I would learn more at The Royal Aircraft Establishment, Farnborough. So, I asked the Admiralty if it would be possible to transfer to the RAE. After a

short while and some interviews at Farnborough I was accepted and my time at ASRE was added to my indentures.

After National Service in REME I worked for Smith's Instruments, Godalming designing instrumentation for the Fairey Delta 2. I then married and we had twin boys and decided to emigrate to Australia where we had a third son. As a hobby I sailed Sydney Harbour for many years. I worked in engineering for the major part of my working life. I designed safety products including emergency eye-washes and showers which were used wherever chemicals were involved. I received an Australian Design Award for my Asbestos Decontamination Unit. It was an interesting line to be in as I was involved in the mining industry, including gold mining, this enabled me to travel throughout Australia. My training at Farnborough was the very best, I enjoyed my time there thoroughly making many friends, three of whom are here in Australia and we see each other regularly.

KNIGHT Family

Brick No. 275 in Square 22



A family affair at the RAE

In 1965 Arthur Knight was transferred from The Royal Arsenal Woolwich to the RAE at Farnborough. Being assigned to department 42 in Q30 building, which looked after the wages department for RAE personnel.

Jean Knight joined her Husband at the RAE in 1971 assigned to Q109 building completing 10 years service before a road traffic accident placed her in a wheelchair.

Sheila Knight followed her parents into the RAE in 1972 assigned to Q3 building. The Reprographics department servicing many needs of the RAE. Sheila completed 20 years service before leaving to start a family.

The Knight family together completed 44 years at the RAE Farnborough, but a total of 72 years in Government service.

Ernie, John & Grahame KNIGHT

Brick No. 652 in Square 11



Ernie Knight was born in 1891. In 1910 he worked as a Copper Smith's Labourer in Her Majesty's Army Balloon Factory. He was called up to serve in the Worcestershire Regiment in 1916 and fought on the Western front. He was badly wounded on the battlefield in France. His left arm was amputated and he was honourably discharged in April 1917. Later that year he was employed in the RAE as a general labourer in the Main Machine Shop.

Later on he worked in the Tool Room as a Group Office Assistant. He was awarded the Imperial Service Medal in 1955 and was a member of the British Limbless ex-Servicemen's Association. He retired from the RAE in 1957 but sadly died the following year. Despite the loss of his left arm he ran the races on sports day on the track that can be seen in aerial photos of the pre WW2 RAE.

He also played bowls on the green near to the running track. The RAE always had a good players and he won the English C. S. Singles Championship in 1953. He also skipped for the Hampshire County team on several occasions.

Ernies wife Edith (John's mother) told a story of when she was a schoolgirl in Cove. Her class was interrupted by the news that Cody had crashed and had been killed along with a passenger. After school she cycled to Laffans Plain to see the crash site. She brought away a fragment from the wreckage. The item was held at Oakley Dairy in North Camp for some years but it is now lost.

John (Knight) was born in 1932. He joined the RAE as a Craft Apprentice in 1948. Special memories are of being a member of the MOS team at the National schoolboys exhibition at Olympia and meeting Duncan Sandys. Also aircraft work in B shed, culminating in doing engine fins under Apprenticeship Master Supervision. The aircraft involved with the De Haviland Rapide and the Devon aircraft and then the Avro Lincoln with its joined two Griffin engines

After finishing his apprenticeship John was employed in G. W. Department in F1E and 134 building model shop as a scientific instrument maker. He worked alongside German scientists employed in RAE after the war.

John was called up for National service in the RAF in 1955; because there was a National Rail Strike he could not travel from Farnborough to Cardington by rail. So Digger Armstrong

arranged for him to fly from RAE to Bedford. The aircraft was the same Devon he had worked on in B shed. He became “one of the few” RAF men to fly on their first day of service.

Due to health problems with his mother John was posted to RAE and served fourteen months with a Joint service trials team testing steerable rocket engines. Several “J Round” test vehicles were assembled FIE then transported to Larkhill for their test firing from a special launch site.

Arthur demobilisation from the RAF John served as a draughtsman in Designs Department. He then moved to Bramshott Short Drawing Office and then to instrument and Ranges DO at RAE Farnborough. He married in 1963 and left RAE for ATP at Chessington.

Like his father John was a member of the RAE bowls club. He served as secretary and was the club coach. He won many championships and like his father skipped many times for Hampshire County teams. He played three county final matches and was a County Bowls Coach. He played No. 3 when an RAE team won the C. S. British Isles four championship in Edinburgh 1963.

After leaving RAE in 1963 John worked as an author for Air Technical Publications at Chessington. He then moved to London as a project officer in Military Aircraft Projects and worked on Jet Provost, Buccaneer and Hawker Aircraft. He retired in 1992.

Grahame (Knight) was born in 1971 he joined the RAE as a Craft Apprenticeship in 1988. In 1993 he served with Western Squadron in L shed. Then as RAE started to close down he moved with the aircraft to Boscombe Down. He worked on various aircraft installations and servicing work. He now works for Rolls-Royce at London Airport on commercial air craft maintenance.

Phyllis KNIGHT (nee WOOD)

Brick No. 833 in Square 25



Phyllis (Wood) worked at the RAE during the war in the Printing Dept. She enjoyed the dances with the Army boys who were not in short supply in those days. During this period she met John Lilburn an army soldier and they married in 1943 and she moved to Scotland to live near his family. Phyllis had 2 children Phyllis (Pip) and John but separated and eventually divorced and moved back to Farnborough. She again returned to the RAE and secured a job in the Printing dept in 1955 and eventually as a Data Input Personnel in the Tridac Dept. There she met and married Charles Knight in 1967 who worked in the Pattern Shop where as well as working on aircraft design produced the pattern for the Cody Tree replica that now stands outside the QinetiQ Building at Farnborough. Charles died in 1983

Phyllis retired in the 1970's but continued to enjoy the social side of the RAE, she remained an enthusiastic dancer right up to her sudden death in 2010 at the age of 86.

R W (Dick) KNIGHT

Brick No. 730 in Square 34



1919 – 1983

Son of Mr and Mrs H.O. Knight, Belle Vue Road, Aldershot

1. RAF SERVICE - Leading Aircraftsman

RAF Speake Liverpool 315 Polish Sqdn. (Hurricanes), RNAS HMS CONDOR Arbroath - Attached to Fleet Air Arm, Posted to Burma (P47 Thunderbolts), Demob date 21/6/1946

2. RAE Farnborough – short term before moving to Blackbushe

3. Silver City Airways Blackbushe (Hermes & Bristol Super Freighters)

4. RAE Farnborough 1959 - 1983 - Aircraft Engine Fitter

Empire Test Pilots School (Piston engine Provost), Institute of Aviation Medicine (Hawker Hunters), Experimental Aircraft Servicing Department worked on following aircraft: Avro Vulcan, Handley Page Victor, De Havilland Comet 4C, Various Helicopters

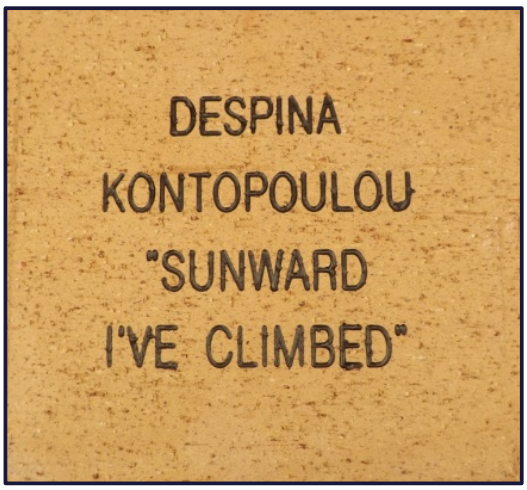
Took part in hands-off landing tests, forward-seeing radar testing and night vision testing.

After spending many hours research in the Technical Library, Dick also took on the refitting of the prototype Harrier engine. This was due to the fact that the Hawker Siddeley employee who had been due to complete the work, had unfortunately, died.

He visited many countries, including amongst others, Tripoli, Singapore, Cyprus, Malta, Denmark, Norway, and Barbados - where he foiled an armed robber who was trying to enter his hotel room. He also visited Thule Air Base, Greenland, in 1962 and became an honorary “Brother of the Blue Nose” on entering the Arctic Circle (Given by the Armed Forces of the United States).

Despina KONTOPOULOU

Brick No. 554 in Square 12



Three reasons I felt the brick should be in her name.

Firstly she supported me fully in my role as the airport CEO. Her last time on British soil was at Farnborough on May 7th last year from where she was flown with me to Athens to be with her friends and family. I still remember her smile as we lifted off from 06 and the beautifully designed terminal, hangars and tower slipped out of view. She was always remarking how wonderful they were.

Secondly, she was fastidious about British history and would have been pleased that Cody had been properly recognised.

Finally, even as a Greek national, Despina's use of the English language was better than many Brits I know, including me, and so I felt a line from that wonderful aviation poem, High Flight, by John Gillespie Magee Jr. would be appropriate; “Sunward I've climbed”.

Despina Kontopoulou was my wife who passed away at the age of 45 on May 31st 2012.

Ian, Gail, Niall, Kim, Morven, Ben, Jo and Riordan KYNOCH

Brick No. 636 in Square 27



I have always had a great interest in both the history of aviation and the army, especially how they started in Aldershot and went their separate ways within walking distance of each other. I have lived in the area since 1965 as a practising veterinary surgeon, and for the last three and a half years in both Farnborough and Farnham.

My grandson, Riordan, only four years of age, and I visited Farnborough Aircraft Museum, last March on one Saturday morning and looked around, and he was of course very interested in Cody's aircraft in the pavilion. It was a memorable, sunny morning and we both thoroughly enjoyed ourselves. When I saw the statue and the brick scheme, I was determined to help and mark this moment in time for Cody and for me and Riordan with a donation. I was also involved in supporting the Globe Theatre in London in a similar manner many years ago.

None of us have any direct involvement with the aviation industry but have been involved with Farnborough in various ways over the years. My daughter, Jo was educated at Farnborough Hill, granddaughter Morven at Farnborough Sixth Form College, grandson Ben at Farnborough Technical College, grandson Riordan, 5 years, plays with the planes and starts up the Cody Machine, and I have worked as a Veterinary Surgeon in a nearby practice, The Swan being too close for comfort?! We all love Farnborough in different ways and all support this project and our history.

Geoffrey R W LABRUM

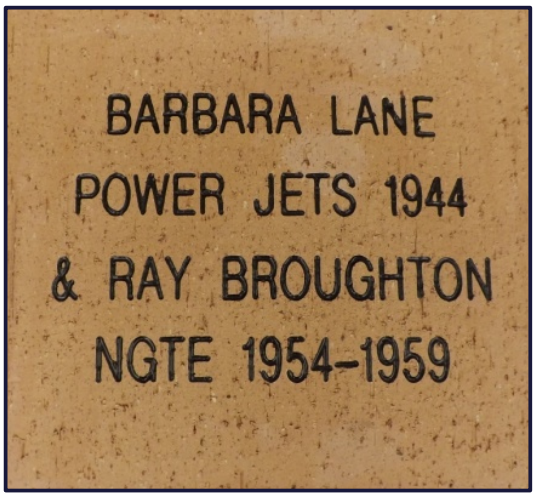
Brick No. 643 in Square 19



Geoff joined the RAE as an apprentice in 1943 and after training was attached to the instrumentation department working in the electro-mechanisms group as an instrument maker. His initial work was on electro/mechanical transducers which included accelerometers, rate gyros and paper tape recorders. In 1953 Geoff worked on equipment supporting Neville Duke's successful land level speed record, using a Hawker Hunter WB188 and by 1955 he was designing cameras for high altitude air speed record using the Fairy Delta aircraft. He moved to the tape recording group to design and develop tape recorders for use in Black Knight re-entry experiments. His work included a range of small and rugged tape recorders for missile applications, the design of larger tape recorders and FM recording systems for acquiring data on aircraft flight trials and early accident data recording systems. In the late 60s he designed and developed parallel data digital recording systems which were manufactured by the RAE and put on demonstration at the SBNAC show. These systems were used on the prototype Concorde as an accident recorder and later manufactured by industry for use as the Nimrod mission recorder and forms the basis of the original low data packing density Modular Data Acquisition System (MODAS). Geoff retired as a Senior Scientific Officer and leader of the tape recording group, in 1987.

Barbara LANE and Ray BROUGHTON

Brick No. 399 in Square 24





Barbara Broughton / Lane c1972



Barbara & Ray Broughton in Australia 2007

Barbara attended the Wyggeston Girls School, Leicester from age 5 until 16 when her father's business went into liquidation. At the age of 9 she had the job of taking David Attenborough (then aged 5 and the son of Frederick Attenborough, Principal of Leicester University) to Wyggeston Boys School which was next door to the girls' school, and related how hard it was to get him across Victoria Park without him stopping every minute to look at some bug or other!

She had hoped to go to Oxford but had to go to work instead. Barbara worked at one of the banks and after some time as the first female teller she was told that was as high as she could

expect to go. She then applied for and got the job of Assistant Medical Officer for Leicestershire helped by her biology studies. The call up of men also helped. She had the job of organising the care of women and children evacuated from London and also of inspecting dairy farms for compliance with health regulations. When war broke out she volunteered for duty manning the emergency phone in the City Hall basement during night air raids.

She married Ray Lane in 1942. He was a radar technician with the RAAF at the Coastal Command station at St. Eval Cornwall where they lived in St. Column. During wartime the Ministry of Labour had the power to direct people where to work and Barbara was directed to work at St. Eval as Assistant Education Officer.

When her husband was transferred in 1943 in preparation for the invasion Barbara returned to Leicester. She applied for and got the job of Registrar for Leicestershire. However the Ministry of Labour directed her instead to work at Whetstone. At the time the job was so hush hush that she neither knew the firm was Power Jets or what they did. At Power Jets in late 1943 she started doing computation work for GBR Fieldon and at times for Whittle. When Stafford Cripps nationalised Power Jets in 1944 and the Reactionaries refused to become employees, Fieldon wanted Barbara to work for him at English Electric.

However with her early experience at the start of the war she was offered a job in the Personnel Department at Pyestock which she took. When it was decided to form the National Gas Turbine Establishment at Pyestock near the RAE Barbara was heavily involved in having the Frimley Council building new housing estates for all personnel and in organising their transfer. She was also given the job of determining which grade in the Civil Service each of the staff at Power Jets should occupy, something that needed a lot of tact and negotiating skill. It gave her a lot of experience in arguing with the Civil Service Head Office which stood her in good stead in later work. At this time Barbara and her husband were getting divorced.

For some time Barbara spent part of the week at Whetstone and part at NGTE staying at the Tumble Down Dick pub at Farnborough. While with Power Jets she had worked and led the Power Jets Orchestra and on transferring to Pyestock formed the Drama Group.

Barbara transferred to Pyestock when Whetstone was shut down as Assistant Personnel Officer and when her boss was transferred to Aldermaston she was promoted to Personnel Officer. She was the only woman personnel officer in the British Civil Service and as you can imagine this caused a lot of jealousy among her male colleagues and several unsuccessful attempts to take her job. She had the backing of both Peter Lloyd and Hayne Constant who recognised her abilities. Barbara had the Library, the Reports Section and the responsibility for all filing for the Establishment as well as Personnel Department.

In 1952 Barbara collapsed with a burst duodenal ulcer in the doorway of her flat in Aldershot, fortunately with her friend Nancy Clarke, Constant and Lloyd's secretary, there. She was rushed to Farnham Hospital where they saved her life with massive blood transfusions. She had four months off work recovering. She was the senior woman at NGTE and was relied on by Constance, Lloyd and Mitchel to organise and look after VIPs during their visits and did a lot of the organising of Pyestock Open Day in 1954.

Ray Broughton arrived in England in 1952 and got a Graduate Apprenticeship through the Ministry of Labour with Vickers Armstrong at Barrow-in-Furness. At the end of the two year apprenticeship he applied for an engineering job in the Civil Service and was directed to go to NGTE for an interview. When he arrived at the admin building he asked the guy at the front desk for the Personnel Officer. He said “Up those stairs first door on the right.” So up he went to find the first door on the right was the ladies toilet. While he stood wondering what next, Mrs lane came out of her office - *second* door on the right - and told him to come in!

Barbara organised the interviews he had with various Section Leaders and at the end a car to take him back to Aldershot. Ray accepted the job at NGTE and started in late 1954 working first in Performance Department doing engine performance calculations for a bypass engine to Mach 1 at 30,000 feet and then in Combustion Department on developing the Cyclone combustion chamber for the Navy. Ray got to know Barbara quite well travelling to Pyestock in the works bus. The bus started at the Hostel where he was staying and picked up Barbara at the first stop. She began to sit beside him initially to avoid listening to Ivor Davidson talk about aerodynamics and to recruit Ray into the Drama Group.

In the middle of 1955 they decided to live together first in a flat in Bagshot, then in a 500 year old thatched cottage in Greywell. Barbara would often bring home Civil Service Directives which were instructions on the application of changes to things like pay rates, promotion, leave etc. written in the most obtuse Civil Service legalise imaginable. Many a night they sat in front of the fire interpreting these missives. In 1958 one of Ray's sisters wrote saying that his mother had developed leukaemia and he should consider coming home. He applied for and got a job at the Aeronautical Research Laboratories at Fisherman's Bend in Melbourne. Barbara and Ray married in March 1959.

Barbara left NGTE in late April 1959. Ray had left in 1958 and was working with the Atomic Energy Authority. ARL had arranged for them to be flown to Australia by RAAF Transport Command in a DH Comet in May 1959.

In summary Barbara's career in the Jet Age began in Whetstone in late 1943 with Power Jets and Whittle and ended at Pyestock in April 1959 with NGTE and Constant.

Barbara and Ray remained in Melbourne for the rest of their lives. After Ray retired they planted and ran a successful vineyard and winery then retired to Port Fairy and latterly Geelong where Ray still lives. Barbara died in 2012 aged 90, and Ray in 2016 aged 89.

Jill and Maurice Shakespeare
FASTA Member 012
14 December 2024

Jill was Barbara Broughton's niece; her Grandmother and Barbara's mother were sisters.

Kenneth John LAURIE

Brick No. 231 in Square 6



Kenneth John Laurie and Peter Brian Laurie were both born in Aldershot, sons of John Henry Laurie, a career soldier with 2nd Bn The Cheshire Regiment, and local girl Ivy Violet Hemmings, John Henry's Battalion having been posted to Aldershot in 1930.

Ken served with the Royal Engineers before starting as an Architectural Draughtsman for the Ministry of Supply at RAE Farnborough in 1955, working in the Technical Facilities Department and specialising in buildings and structure. His wife Joan Laurie, my Aunt, I know has emailed you with some detail of some of the work he did. Away from work he was also notable as an athlete and as an artist, and he and Joan had a daughter Angela.

In memory of K. J. LAURIE Tech Facilities Dept. 1955 – 1979

Designed:

1956 Control Tower;

RAE Canteen including Cody's large mural Aeroplanes on the walls of the RAE Officer's mess;

The Monument cum Water Fall at South Gate (now demolished);

RAE Sports and Social Club including a special wall to prevent penetration of infra-red light;
Sound proofing of toilet in Directors' Suite for Princess Margaret's visit.
Prepared the exam papers for the Tom Nevard Award which the RAE won, and in which all the Ministries took part e.g. Portsmouth Dockyard.

Peter Brian LAURIE

Brick No. 232 in Square 6



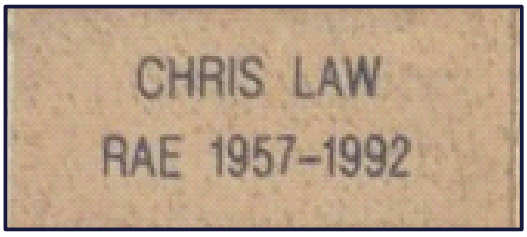
My father Peter served in the RAF, including postings in Northern Ireland and on Christmas Island. He was a Fireman by trade and on leaving the RAF joined the Ministry of Aviation (later to be merged into the Ministry of Defence), as a Fireman in 1962 at RAE Farnborough. He held the post of Sub-Officer, and during his time there he dealt with incidents such as the 1964 Bristol Bulldog crash, the 1968 Breguet Atlantic crash (Ken watched this happen, and went looking for his brother having seen this aircraft crash at the 'Black Sheds' where the Fire station was based. They used to visit each other at work, Ken used to call his younger brother 'Horace the Hose'! Family history doesn't record his reply), the 1974 Sikorsky Blackhawk crash, the 1984 De Havilland Buffalo crash, amongst others.

On 24th June 1980 he was part of the flight crew of balloon 'G-ZUMP', commemorating 100 years of British Army balloon flying. Whilst at the RAE, he also served as a retained Fireman for Surrey Fire Brigade at Farnham Fire station.

He was married to wife Carolyn Jane, and had a son and daughter Darren Mark and Amanda Jane. On his death in 1987, flying was stopped for the day at the RAE so more his colleagues and friends could attend his funeral, such was the regard in which he was held.

Christopher Arthur (Chris) LAW

Brick No. 87 in Square 40



Chris left Lincolnshire to join the RAE in 1957 as a Scientific Assistant. He became a Graduate and Member of the Institute of Physics in 1965 and a Charted Physicist in 1975. He held many job roles in his 35 year career, his final one being a Senior Scientific Officer. Chris held this post from 1985 till he took early retirement in 1992. He was also one of the world's leading authorities in his field – Gyroscopes/Optics and Laser Mirrors.

The last building Chris worked in was Q134 Space Department (formerly Weapons Testing Department) which is still there today and is now known as The Hub.

When starting on the 29th April 1957, Chris lodged with other new starters who became firm friends and they became known as The 57 Group. The 57 Group went on to meet up every April 29th until Chris's passing in 2019. The very last meeting of the 57 Group was held on the 29th April 2022 at the FAST Museum, where along with Chris's family, a Celebration of Life was held and his ashes placed under his brick.

This Tribute by his Daughter, Granddaughter and Son
Jackie Law, Kirsty Manning & David Law
19 February 2025





Chris Law, 25th Dec1937 - 16th Oct 2019
Left: Standing near to his commemorative brick, Sep 2016
Above Right: Business Cards





1	Carl Beken	7	Chris Law
2	Dave Ferris	8	Ken Carter
3	Ray Powell	9	Jane Wyatt (Nee Jones)
4	Phred Crossby	10	Jen Ferris (Nee Day)
5	Tony Karavis	11	Gill Beken (Nee Corney)
6	Bob White		

57 Group Annual Meeting held on 29th April 2017, the exact day 60 years earlier that Chris Law started at RAE Farnborough.

Group pictured in front of the Cody BAA No.1 replica at the FAST Museum.
With sincere thanks to Bob White (No.6) for facilitating this 57 Group photograph.
See also Bob White's story.

LEE AIR SERVICES

Brick No. 169 in Square 23



Lee Air Services – LAS provide aircraft management, flight operational, administrative and aircraft charter brokering services to a number of companies based at Farnborough. Since the handover from a government research airfield to a dedicated business aviation airport for London in the 1990's LAS has been one of many businesses who have benefited from this new role. You might say we represent the next generation of employers at the airfield and proud that Farnborough continues as an active and prosperous airfield to the benefit of local people and country as a whole.

Andrew LEE

Brick No. 165 in Square 23



Claire, Andrew & Emilia Lee – Simply because over the years we have as a family enjoyed our involvement with the FAST museum and also the SBAC air shows.

Alexander and Judy LEVACK (nee APLIN)

Brick No. 605 in Square 27



I joined the RAE in 1955 and continued until 2006, by which time RAE had become QQ. Ultimately I specialised in applying anthropometric data to aircrew problems, especially the sizing of their multi-layered assemblies of protective clothing, and carried out a survey of military females to gather the data needed to equip them for flying roles in the Services.

My social life revolved around the RAE Staff Mess, which was the amalgamation of the Senior Staff Mess, the Technical Staff Mess and The Foreman's Mess all co-existing along with the Director's Mess in a very insubstantial building behind the Swan hotel, as old as the RAE. The administration of the Messes was carried out by a Committee of RAE volunteers, of whom I was one.

Alexander Levack was the sole surviving non-RAE Farnborough business member admitted to the ranks of the Foremen's Mess under its own informal interpretation of the rules, and he had joined by invitation shortly after the Second World War, remaining a keen and active member until the demise of the Mess.

Our paths crossed when the Atlantique aircraft landed on the roof of the Mess before coming to rest on the main entrance, South Gate, just down the road during an Airshow c1970. Mess facilities were shared for a period afterwards while repairs were carried out.

At the time of the formal amalgamation of the Messes Sir Robert Coburn was Director of the RAE and President of the Mess Committee, and I was Secretary.

When asked "What are we going to do about this estate agent fellow?" little did I imagine then that part of the answer would eventually be, with apologies to Charlotte Brontë: (Reader), I married him.

Anthony Michael (Dan) LONGLEY

Brick No. 536 in Square 12



My dad was Anthony Michael Longley or more commonly know as ‘Danny’ Longley to his friends after a cartoon character when he was a child.

He started at the RAE on 7th October 1958 as R9D mech(S). sorry I don’t know what that relates to.

He passed his clerical class open exam October 1966 and CO limited exam 25th August 1967. Started as CO at RAF Mess 14th October 1968. Passed EO board 9th May 1974 and went to Airfield stores. Transferred to Att Weapons 3rd March 1983. He sat his HEO board in June 1988 but then his notes stopped. He later died in Nov 1989 from a heart attack.

I have attached a page from the RAE news magazine of my Dad sat at the computer. He had been in a wheelchair from 14 years old after catching polio from swimming at a scout camp. He had spent many years in various hospitals including being in an iron lung. Despite having been through so much I will always remember him, as do his friends and family as a smiling, happy comical character.

My mum and brother now live in Australia but it was myself and my brother on his visit in June to the UK who decided we would like to purchase a brick for Dad in his memory and it is in such an apt place due to his love of planes. I remember he used to listen to aircraft noises on tape through the stereo speakers and knew exactly which plane was which.

J C H LONGRIGG

Brick No. 301 in Square 30



1967 - 1995

After five years with De Havilland Aircraft (Sea Vixen), two years with De Havilland Engines (Gyron Junior for the Bristol 188) and five years in Australia with the Australian Atomic Energy Commission (Nuclear reactor for South Australia) Chris Longrigg joined RAE in 1967 as a Senior Scientific Officer.

He started life in Engineering Physics Dept to work on parachute research and supply dropping. This culminated in joining with parachute packers, aircrew and others in experiencing a parachute descent for real. This was from an Army Avro 748 into the sea off Studland Bay, where they were picked up by Marines in inflatable's. The parachutes used were not troop carrying parachutes but scrap ex-ejection seat 24-ft flat parachutes, which developed an alarming pendulum motion!

The next job was "Cabtrack", part of the civilian diversification mandated at the time. It consisted of an anywhere-to-anywhere personalised urban transport system, running on elevated segregated tracks. Considerable progress was made with the systems aspects, such as merging at junctions and capacity limitations, and the practical aspects of guiding and driving the cabs. Options ranged from steel wheels on steel rails to rubber tyres and even magnetic levitation with track based magnetic induction. No customer city could be found so work ceased.

By this time it had become apparent that Polaris, Britains deterrent to the Soviet Union, was soon to become non-credible, because only one British submarine (out of four) could be guaranteed to be on station at a given time whereas defences around Moscow were becoming very effective. The "Polaris improvement program", later known as Chevaline, was therefore initiated, led by RAE and AWRE, with British and US contractors. It was necessary to test the Penetration Aid Carrier (PAC) in free-fall and to do this the Falstaff rocket was developed and launched at Woomera in Australia. This was Longrigg's main activity and he made two visits to Woomera.

Having by now become a trials specialist, his next program involved launching AWRE experiments from a US sounding rocket (Red Tigress) at Cape Canaveral. However the rocket went off course and had to be destroyed by Range Safety, which resulted in bits of classified hardware landing along a public beach, quickly recovered by the AWRE trials team.

In ballistic warfare the battle continues between offence trying to conceal warheads among decoys, and defence trying to discriminate. RAE came up with a novel concept to velocity match decoys to warheads, which needed to be flight tested. The US was sufficiently interested

that they provided a free ride on STARS (Strategic Target Re-entry System, basically a Polaris missile with a third stage added). This was launched from Hawaii towards the Marshall Islands where the US had powerful radars at Kwajalein atoll, and in addition aircraft carrying electro-optic sensors followed the trajectory to gather data - all paid for by the US. Longrigg made 24 visits to the US to help stage this trial, known as Zodiac Beauchamp, which included the delights of time spent in Hawaii!

By the time ZB was finished the Cold War was winding down and Longrigg took the opportunity for early retirement so that he could move to Australia where his Australian wife's parents were in need of her attention. This ended a highly interesting, varied, and enjoyable career at RAE.

Raymond Frederick LORD

Brick No. 1143 in Square 57





ATC cadet Raymond Lord, 14, who was killed in the Farnborough jet disaster.

Raymond Frederick Lord was born in June 1938, the only child of Hilda and Frederick.

Raymond had auburn hair and many freckles! He grew up to love planes and aviation as his father had been in the RAF and then worked at Croydon Airport. Raymond was much loved by his parents and extended family; he was a member of Air Training Corps.

Raymond was a pupil at Elmwood Secondary School in Beddington when he tragically lost his life in the Farnborough Airshow Crash of 1952, at just 14 years and 3 months old.

Remembered by his cousin.
Mrs G Schofield (Nee LORD)
15 November 2025

Square 57



AIR CADET

The hillside was a scene of devastation. One eye-witness, Mr. H. A. Dunk, of Southampton, said: "There were injured and dying people all over."

While the show was going on, the grim business of identifying the victims was going on a mile away at Farnborough Town Hall. The inquest will be opened today.

Among those killed was 14-year-old Air Cadet Raymond Lord, of Gay-road, Wallington, Surrey.

He persuaded his father and mother to take him to the display. His aunt went, too. And the three were among the 65 injured.

Many of the casualties were members of a special party of 61 Armstrong - Whitworth Aircraft apprentices and their friends who made the journey in two motor coaches



NOTE:
Square 57 is a Memorial to the Farnborough Airshow Crash of 1952. A prototype DeHavilland aircraft (DH110) had thrilled the crowd with a high speed dive over the Farnborough airfield which broke the sound barrier. The aircraft climbed,slowed and manoeuvred to turn back towards the airfield before accelerating again. The aircraft was suddenly seen to break up with fuselage and cockpit hitting the runway and one of the two engines crashing into spectators standing on SBAC Hill, where Raymond and 28 other spectators were killed. Over 60 other spectators were injured some seriously.

The Pilot was John Derry and Observer Tony Richards who both died instantly.

This was the worst ever Airshow disaster in Great Britain. All 31 victims, including the aircrew, are remembered in Square 57 of the Commemorative Brick layout.

Brian LUFF

Brick No. 245 in Square 6

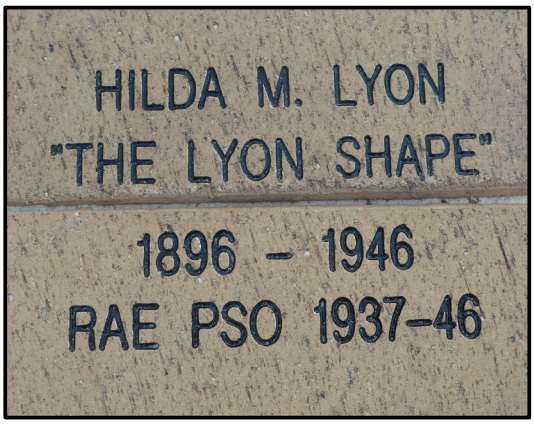


You asked for a few words about why we have bought a brick. The simple answer is we bought it to show support to my dad, Brian Luff. We also want to demonstrate pride in and respect for Farnborough's aviation history. Without the airfield the town wouldn't be here and neither would FAST.

FAST had been my Dad's passion since he retired. Dad loved his job and we were concerned about how he would manage without it. FAST came at the right time for him and us. He has thrown himself into every aspect of the museum and gets so much from it. He is very proud of it and its success and we are very proud of him. This brick is really for my Dad who we love very much.

Hilda Margaret LYON

Brick No. 1184 in Square 60



Hilda Margaret Lyon MA, SCc, AFRAeS, born in Market Weighton in 1896, was a talented mathematician who became not ‘merely’ a trailblazing woman in engineering at a time when women were not expected to be engineers, but also a technical pioneer who contributed significant technological advances during the early days of aviation.

Hilda graduated in the Mathematics Tripos from Newnham College, Cambridge in 1918, then studied in the USA and pre-war Germany before becoming one of the select band of female scientific civil servants at the Royal Aircraft Establishment. She helped design the ill-fated R101 airship at the massive Cardington airship sheds.

She worked to ensure the safety of aeroplanes and submarines in the Second World War, going on to invent “The Lyon Shape”, a streamlined design used to this day for aircraft and submarines.

In her own lifetime, Hilda was well known for her analytical expertise, but now, so many years after her untimely death in 1946, her story is only just beginning to re-emerge onto the public arena. Hilda was a remarkable Yorkshire woman and a significant engineer, deserving of more widespread recognition in our future of ever-advancing innovations.

A book authored by Dr Nina Baker OBE, DL, PhD, BSc, FIES, HonMWES *Adventures in Aeronautical Design: The life of Hilda M. Lyon* (ISBN 9798650270584) is available for further descriptions and details of Hilda’s life.

Family member
Valerie Lyon
15 November 2025





Arthur E LUNN

Brick No. 649 in Square 19



(1919 – 2010) Local Historian and Writer

Arthur Edwin Lunn was born in Cove, (his father worked at the RAE) and lived most of his life in and around Farnborough. Arthur's extensive recall of the olden days and local history was reflected in two of his books 'Our Hampshire Cove' and 'Cove – A Village at War', as well as in many published articles (Hampshire Magazine, The Soldier, etc.)

His contributions to The Cody Society and the FAST Museum are well recognised and documented (cf 'Cody's Tree' by Sydney Foster), especially Arthur's efforts to assist with the search for the original site of the Cody Stones – concrete crosses marking the exact spot of Cody's fatal crash.

David MADGWICK

Brick No. 264 in Square 14



Design Engineer
R. A. E. 1972 through DRA, DERA & Qinetiq to 2011
Cody BAA1A CAD modelling and manufacture

David completed a four year apprenticeship as an instrument maker at R.A.E. and worked in various departments before moving on to design work installing experimental equipment in aircraft of the RAE fleet. He worked at The Institute of Aviation Medicine on pilot breathing equipment tests for the Eurofighter program. In Aerodynamics Department he ran tests in the transonic wind tunnel. Here a decrepit IBM PDP 11 computer that dated back to the early 1970's was still in use. After closure of the tunnel David moved back to design work and became particularly proficient at reverse engineering using state of the art scanning equipment and CAD software.

Reverse engineering of power station engine parts, including the massive turbine blades was required by David's customers who wished to make their own new parts and thus avoid the expensive original equipment manufactures (OEMs). This proved to be most interesting work. With office colleagues unique computerised techniques were developed to produce components that were significantly better performing and longer lasting than the OEM parts.

In 2007 David heard of an interesting project. Some crazy person at the FAST museum thought it would be fun to make a full sized replica of Samuel Cody's first flying machine and complete it in time for the centenary of Cody's pioneering flight in 1908. Virtually none of the original aeroplane existed. There was however an excellent photographic archive of glass plate negatives taken by Sam Cody at the time of his experimentation. Cody's recording of his pioneering work is probably unsurpassed especially at such an early stage in aviation. David's knowledge of reverse engineering would be of great use and he wasted no time in offering his help.

David and colleague Ken Funnel created an accurate computer model of the Cody machine. This was used to create a comprehensive drawing set for the manufacture of the detailed components and for aerodynamicists to determine the flying characteristics of the machine. Some of the smaller, more manageable parts were made by the many volunteers at their homes with the larger parts being made on site at FAST. David made the rudder, engine fuel and water pumps and various control wire fittings. Specialised parts such as castings for the wing struts

and some engine parts were made directly from David and Kens CAD models by commercial companies. Analysis of the photographic plates took many hundreds of hours and during this David re-discovered that the Cody used an early form of 'wing warping' for lateral 'roll' control. Interestingly, historical authoritative documents and books had claimed otherwise. In his 1953 book a contemporary of Cody, G. A. Broomfield had claimed warping was used but his evidence had been mocked by the 'experts' of the time. Broomfield was right, the photographic evidence is very clear.

In the run-up to the Centenary of Cody's flight someone noticed that David had a passing facial resemblance to the younger Sam Cody. He already had a goatee beard and this was 'developed' in time for the day when he acted the part of Cody 'flying' the stationary replica. David is a long standing member of the Hants and Berks Motor Club which counted amongst its members many RAE employees. H & B member Mike Trotter owned a 1914 Vermorel Motor car which served as appropriate veteran transport for Mr and Mrs Sam Cody, (David with Veronica Graham-Green acting as Lela).

David's hobbies include:- classic cars, music, vintage Hi Fi, photography, DIY, motoring, economy driving and anything technical that needs fixing.

Michael B MANNING

Brick No. 777 in Square 10



1953-passed test to become mechanical five-year apprentice

First year was to experience life in for workshops.
A. Instrument shop three months.
B. Fettling shop three months.
C. Sheet metal shop three months.
D. Millwrights three months.

You then went before a board of directors who asked what shop and trade you wish to follow. I chose instrument making. They look through your report from that department and said we will let you know in two weeks. I got my choice and spent the remaining four years in that department eventually becoming its manager.

1959 National Service in RAF

Came out and went to Space Department in R.A.E. Loved it preparing a package daily for a Squadron Leader to fly package in a Canberra Bomber daily to see how fuel behaves in zero

gravity. Then I applied for promotion, got it and became manager until Maggie Thatcher 1981 left a 2 year moratorium in the civil service and that finished Farnborough.

MARLBOROUGH INFANTS SCHOOL

Brick No. 373 in Square 13





Cody Statue Project

Marlborough Infant School was built around 1897 in the Marlborough Lines district of the Aldershot Garrison; many local residents to this day still refer to the school as Marlborough Lines School.

Currently the Year 2 pupils are engaged in topic work, finding out about Samuel Cody. They will shortly be visiting the FAST Museum to further enhance their understanding of this great aviator.

Through their research they have found out that the fuel for Cody's plane was procured from the Marlborough Lines Quartermaster's Stores and are therefore presuming that previous children, attending the school at that period, would no doubt have been very aware of Mr. Cody and his marvellous invention. They may even have seen his plane flying!

The School and its Army Children have a long connection, running in parallel to Samuel Cody, and are therefore keen that their own history should forever be linked to Samuel Cody and his wonderful achievements in the North Camp area of Aldershot & Farnborough.

It is for this reason we have decided to buy our brick.

Mike MARKIN

Brick No. 439 in Square 29



From a very early age I had a passion for aviation and a strong technical interest. After a brief spell with the British Aircraft Corporation I joined RAE in 1973 working on optical countermeasures to guided weapons in Radio, subsequently Defensive Weapons departments. I loved the culture of scientific rigour and found out how often things can go wrong in the real world of trials work! Over the years I moved to cover many aspects of guided weapons and, in 1988, this paved the way for selection as head of a branch in London directly descended from that set up by R. V. Jones in the Second World War – perhaps the finest tour a GW expert could wish for.

Returning to the newly formed DRA I joined Flight Systems at both Bedford and Farnborough, at one stage running 3 Divisions and the Air Fleet in parallel – a heavy load but helped by being able to commute to work on the air ferry! (Over my career I was lucky to notch up some 300 hours of experimental flying).

My final task at Farnborough in 1995 was to lead the technical audit of the Eurofighter programme to inform the government decision on the future of the project.. The study was comprehensive leading to a report of over 30 volumes, perhaps almost the last time that superb expertise could be mustered across the entire aerospace spectrum. (My colleague Alan Brown did an extraordinary job in pulling all of this together).

The study was deemed a success and my reward was promotion once again to Whitehall. I was proud to become Director General of Research and Technology, and finally, through open competition, MOD Chief Scientist and Head of Profession for all civilian scientists and engineers. I know that I could not have achieved this without the launch pad of the very high standards set in the Research Establishments, and the support of many outstanding people who worked in them.

Doris Renee MARTIN

Brick No. 467 in Square 36



Doris Renee Martin, or ‘Renee’ as she was always known, was born in Farnborough in 1919 and lived there all her life. Her father was an engineer at the Royal Aircraft Establishment and the family originally lived in Rafborough not far from the airfield. She often related how in earlier days it was possible to walk right across the airfield as it was still Cove Common at that time.

When Renee left school she first took a job at the GPO telephone billing service and commuted to London. In 1938 she transferred to a clerical post at the Royal Aircraft Establishment where she worked until she stopped to bring up her family in 1942. She was a lucky survivor of the bombing suffered by RAE in 1940, having only just reached a nearby bomb-shelter. Once her family were grown up she took a number of clerical jobs in the Farnborough area before returning to the RAE in 1970 initially in a Messenger post.

She soon took a job as a Clerical Assistant dealing with accommodation and other issues for the RAF detachment. She was subsequently promoted to Clerical Officer in 1973 and worked in the Pensions area. She continued in this role until her retirement in 1982.

Desmond MASON

Brick No. 1053 in Square 53



Throughout my childhood and early life I lived in Farnborough (Somerset Road); and during this period (l926 - 1944) my friends and I wandered freely over Cove Common and the adjacent airfield, to swim in the reservoir and roller skate on the hard areas surrounding the 'Black Sheds' on the north side of the airfield - a wonderful period during which I can distinctly remember seeing several large airships at various times in the vicinity of the airfield.

After civilian apprenticeship at 13 Command Workshops in Aldershot, and a period of National Service with the REME, I obtained employment in the Electrical Engineering (Elec. Eng) dept, at RAE Farnborough, working initially on electric cables and insulation materials generally, and then for the Canberra and 'V' bomber types of aircraft.

Elec. Eng. dept was eventually disbanded and Staff/Tasks were integrated with Engineering Physics Dept.

My later years (1974 - 1986) were spent working at MOD, St Giles Court, London; in divisions which worked closely with RAE Farnborough. on matters requiring their specific technical inputs on aircraft electrical equipment and airborne forces equipment topics.

Norman G MAULTBY

Brick No. 704 in Square 3



Norman / Norm joined the RAE as an apprentice in 1952 and worked there for over 40 years. He worked many years in the model shop, starting as a model maker and progressing to the role of Quality Officer, making good friends among his many colleagues over the years.

He was very proud to have worked on the development and testing of Concorde, an aircraft that he always admired and enjoyed watching over the years. Sadly, Norman passed away in August 2012.

Edith MAYBURY

Brick No. 289 in Square 22



Edith was widowed in 1912 and worked at the Balloon Shed from some time after 1914 until the late 20yrs, no dates exist. She always hated the smell of nail varnish which can be attributed to her working in a building where aircraft fabric dope was being used.

Leslie MAYBURY

Brick No. 289 in Square 22



(Son of Edith). Leslie worked in London during the war for the Admiralty Naval Air on the design of aircraft carrier arrester gear. He moved to Farnborough with Naval Air in January 1947. When the Naval Air Department moved to Bedford he stayed at R.A.E. and worked in Weapons Department until he retired in December 1973.

Maureen MAYBURY

Brick No. 288 in Square 22



(Daughter of Leslie). Maureen started at the R.A.E. in March 1953, training in the Drawing Office and attending R.A.E. Technical College (Now Farnborough Technical College). Worked in many department drawing offices including Designs, Electrical, Guided Weapons, Instrumentation, Weapons and finally A.R.L. when leaving in November 1966.

David Edwin MAYHEAD

Brick No. 311 in Square 30



Born 30th July 1930
David passed the entrance examination to attend Guildford Technical College in 1946 and after successfully completing a two year course, joined a local garage as a mechanic before being conscripted into the RAF, as an engine fitter.

He then worked at the 13 Command REME workshops in Aldershot again as a fitter but during this period obtained his Ordinary National Cert and eventually his Higher National Cert with endorsements. He joined the RAE as a Trainee Draughstman in 1955 and was posted to Technical Facilities D.O. His claim to fame is the overall design of the aluminium dome still in use at the Ball Hill site.

In 1968 he transferred to Trinity House Lighthouse Service as a Lighthouse Engineer and for the final 15 years became Safety Adviser to the service retiring in 1991.

Fred MAYHEAD

Brick No. 941 in Square 7



Fred Mayhead joined RAE Farnborough as a craft apprentice in September 1949- 1954. At the end of his apprenticeship, in 1954, he worked briefly in the drawing office before doing National Service in the RAF. After National Service he came back to RAE to the Aerials Division of Radio Department.

In the early 1960s he transferred to the IR Division of Radio Department at Ambarrow Court as work in this group was expanding from atmospheric and basic materials research to the development of countermeasures to protect aircraft against the developing 'Infra-Red' missile threats. As these 'Infra Red' countermeasure activities expanded the IRCM group transferred into the Electronic Warfare Division and moved back into Farnborough.

The first step in the programme was to measure the IR signature of the different aircraft and Fred was involved in the development of both ground airborne radiometric measurement facilities and the measurement programmes. The airborne radiometer was in Comet 2E XN453 which enabled signatures of the aircraft to be measured at operational altitudes up to 40,000 feet.

The second was to look at suppression or shielding of the aircraft hotspots to minimise the signature. This concept was not practicable as a retrofit for fixed wing aircraft but the group was instrumental in developing shields for Sioux, Scout, Wessex and Gazelle helicopters and a suppression system for Lynx.

For the fixed wing aircraft and large helicopters an active system was needed in the form of a decoy flare which could be ejected from the aircraft to provide the incoming missile with an alternative and more attractive target. The pyrotechnics were the responsibility of RARDE but the IRCM group was responsible for determining the characteristics required and all the testing either from the Comet with the flares dispensed from a Canberra or the ground radiometer with flares fired from the high speed test track at Pendine.

IR missiles became a threat to RN ships and the Comet was initially used to measure in-service ship signatures in different waters and also that of the new gas turbine engine fitted with different development suppression systems at the Rolls Royce Anstey test bed. This RN programme was eventually taken over by ASWE.

As the IR missiles developed so did the need for improved countermeasures and better airborne measurement facilities and Fred was the lead in a programme to develop a more capable system to be fitted to a BAC111 but unfortunately that was terminated.

Fred served as Chairman of the NATO committee engaged on IR defence for a number of years and finally retired in 1995.

Wilfred Eric MAYHEAD

Brick No. 310 in Square 30



Born 24th August 1928, Died 22nd October 2012

Wilfred passed an entry examination to attend Guildford Technical College at the age of 14 and successfully completed the 2 year course, in Mech Engineering. He then obtained a place at the RAE as an apprentice. During this period he obtained a Higher National Cert with endorsements in Mech Eng and was employed as a draughtsman at the RAE.

When he was 24 he transferred to the Atomic Weapons Research Establishment (AWRE) at Fort Halstead in Kent and later at Aldermaston where he subsequently became a professional engineer (IMech.E).

He visited Maralinga – Australia as a member of the Technical Support Section during the atomic bomb trials.

On his return to Aldermaston he became Head of Apprentices until his retirement in August 1992.

Mary McDONALD

Brick No. 574 in Square 4



I have ordered a brick for my Mother Mary McDonald who worked at the RAE from the early 60's until her retirement in 1984. My Mother was Maltese and met my Father Randolph McDonald whilst he was based in Malta during the second world war, he served in the Royal Navy and was a deep sea diver and checked the ships for Mines etc which was a great threat to our naval fleet.

My Mother came to England after the war ended, she arrived in Liverpool in November 1945, and had never seen fog before and thought that it was some sort of smoke screen, haha... a rude awakening to the British weather! My Mum and her family knew great hardship during the war and Malta went through many years of difficulty but she always felt so proud of what her family and the Maltese gave to the war effort. Both my parents sadly lost siblings during the war as so many did.

They eventually moved to Farnborough in 1949 when my Father started working at the RAE and also worked there for the rest of his working life. They both had very fond memories of their years at the RAE and had many stories, I wish now I had taken more notice of these as I think they may have been of interest to others.

Not sure if any of the above will be the sort of thing you require but that's all I can think of at the moment, thanks for the opportunity to have this small reminder of my Mum who sadly passed away 3 years ago, she would of loved to have seen the Cody Statue and the chance to remember some names from the past. They were both rightly proud of Farnborough's contribution to aviation and innovation.

Charles McDOWELL

Brick No. 690 in Square 3



Charles McDowell started his career in the Royal Air Force at RAF Locking, Weston Super Mare. During the second World War spending time at Ghoom in northern India and later time in Egypt at the time of Suez crisis. Working on 'V' bombers, Handley Page Victor, and Blue Steel systems at RAF Gaydon, Cottesmore and Wittering with a short time in Australia.

On leaving the Air force with a British Empire medal joined the Meteorological research flight unit at the RAE Farnborough keeping a Hercules, Canberra and Electric Lightning research aircraft flying. In 1973 the Hercules, and possibly the Canberra, was used on research on the jet stream involving US, UK and French personnel in Denver, Colorado flying over the Rockies. I am not sure if the Lightning was used there. The team were all also in Kristiansand for several months flying over the Arctic for the same project. I think the project was called 'GATE' but I cannot recall what the initials stood for. All three aircraft were involved in research from Bordeaux a year later. I believe a Soviet team was also later involved in research over Dakar Senegal later. There may have been other countries visited but I am uncertain of this.

On leaving the RAE went to BA Systems at Chessington before finally retiring in 1987.

The photograph is of the flight team circa 1973 in front of a Canberra research aircraft. Charles McDowell is 4th from the left. Unfortunately I am 2 names short.



Bob MILES

Brick No. 600 in Square 35



1914 - 2010

Actually Herbert Leonard Miles, but always preferred to be called 'Bob'. After a long career in the army he came to the RAE in 1958. He worked in 38 Department as a Fitter until he retired in 1979.

During his time there, he worked on many projects. On one occasion he went out to Woomera in South Australia to help sort out a problem with the fitting of fins to rockets that were being tested there.

Derek (Dusty) MILLER

Brick No. 910 in Square 4





Dusty Miller C.Eng. M.I.Mech.E., BAE test pilot chauffeur 1978-1989

Derek “Dusty” Miller came from a long line of craftsmen with three GWR wheelwrights and coachbuilders in the Miller line above him.

As a young man he was a fast sprinter with an exceptionally good eye for a ball and strong wrists. These attributes made him ideal for the position of left wing in hockey, from where the cross into the centre is notoriously difficult: he obtained 24 caps for England and 23 caps for Great Britain, which he represented in the Rome and Tokyo Olympic Games.

Dusty's professional career started with an apprenticeship as an automotive engineer at AEC on Regent III double decker London buses. From there he earned his status as a Chartered Engineer and Member of the Institution of Mechanical Engineers. By his thirties, Dusty was working at the Unilever subsidiary, United Africa Company, as an engineer involved in their timber business and then their Caterpillar earth moving equipment business in Africa, spending many long trips abroad there while his family lived at home in Surrey. He thoroughly enjoyed

all his long flights to and from Africa in the VC10 built in Weybridge. Eventually, Unilever told him he must move full-time to Africa, but Dusty decided he must stay with his family in England and start his own business instead.

With his knowledge of automotive engineering, in 1978 Dusty decided to start his own car hire and chauffeur-driven business, Radio Car Hire, in Guildford. Dusty soon built up a large fleet with a wide variety of customers, driving for many rock stars and fashion superstars as well as working for Surrey County Council and the NHS. An important part of his business included driving staff and guests travelling to and from the BAE sites at Dunsfold, Weybridge and Kingston, as well as Farnborough and Boscombe Down.

Dusty's most esteemed regular drives were the Hawk and Harrier test pilots based at Dunsfold. He would be cross-examined by his sons at evening dinner about what the likes of John Farley or Jim Hawkins were feeling that day and what Dunsfold was doing, but he would not reveal a lot. Nevertheless, the whole household knew, after "Catseyes" Cunningham's 1975 HS125 bird-strike EFATO crash at Dunsfold, that even test pilots could get into danger and he would try extra-hard to prepare the cars, therefore, when they were to be used to drive for Bae, since the passenger had every chance of being a test pilot. On one occasion, after driving the test pilots for 10 years, Dusty asked John Farley whether his younger son, who was training as a private pilot, could carry out the work experience required for his degree in aeronautics, at BAe. Dusty and his son were enormously grateful for John Farley's kindness in arranging this experience at the Weybridge and Dunsfold sites: Dusty's son was the only student in the entire 300-strong year of engineers at the University of Cambridge to carry out his work experience at these sites.

The Farnborough Airshow was a significant event in Dusty's calendar. He would drive all sorts of important staff and guests for BAE, both to and from Farnborough. Any run he made from Heathrow to Farnborough during the show could be for a member of a highly important potential customer delegation, such as the Saudi Arabian or Indian delegations. Dusty would be seen as the first representative of the British aeronautical industry that these guests would meet and took his role particularly seriously.

Dusty Miller C.Eng M.I.Mech.E., BAe test pilot chauffeur, automotive engineer and representative of Great Britain at the Rome and Tokyo Olympic Games, was born on St Valentine's Day 1936 and passed away on 23rd December 2002.

Paula MILLER

Brick No. 564 in Square 4



I was born at Farley House, Farnborough on October 9th 1954 and went to school in Farnborough and Aldershot High School for Girls and did one year at Farnborough Technical College, opposite the RAE. In my Junior School, I was invited to stand up in Assembly and tell the school about Cody. My History Teacher in Aldershot, told me, she remembered her mother being invited by SF Cody to go up in the air with him, but she was too scared to go! When I was in the Sixth Form, I did a work experience in the RAE and worked in the Wind Tunnels looking at the wake behind propeller blades. I grew up in Farnborough with my sister Patricia, born 1956, and my parents. My father was Paul Cody, (1928 - 2003), and he married my mother Cacelia, (1919-1995) in 1949. They lived in Ash Vale for a year at Vale Croft with my grandparents and dad's brother Leslie, his wife Josie and their four children, Paul, Peter, John and Lesley. My mother was from Danzig when it was a Free State. It is now Gdansk in Poland. My father's father, my grandfather, was Vivian Cody, Lela Cody's son, and he married my grandmother Eva. My grandmother used to tell me how she met Vivian in the Kite Factory where she worked. She told me that she liked his long hair. My own wedding dress was made from Cody silk that we had in the family. I have many memories of Sunday lunches and teas at Vale Croft, Ash Vale when I was a child. I remember my father having his first car delivered via my cousins, Peter Cody and John Cody, and picking it up as a family from Vale Croft, where Peter and John now have Cody Cars. My grandfather used to draw horses for me when I was a child and grew yellow as well as red tomatoes in the garden at Vale Croft before my cousins started their business there. My granny kept chickens in the garden. I am very proud to be one of the great grand daughters of SF Cody.

Seventeen years ago, 1996, my Dad and my cousins, John and Peter, sold the Cody memorabilia in auction at Sothebys in London. My uncle Leslie had died before the sale took place. It was called the Cody Archive. A lot of it was bought by the then owner of River Island, who set up the SF Cody Emporiums.

Five years ago, in 2008, my husband John and I, visited the Farnborough Air Show and were very happy to meet David Wilson and his team who had just completed the Cody Flyer Project. I met David and his wife and the team and was thrilled to see the Flyer and the exhibition of the history of Cody sourced by Jean Roberts. In October of the same year, we went to the Celebrations of the Centenary of Cody's first flight in October 1908. We attended the dinner organised by the RAeS on the eve of the first flight and the FAST celebrations on the morning

of the 16th October, when I was very excited to meet my cousins Mark Cody and John Simpson, Roe's grandson and Margaret Thatcher. We enjoyed the FAST volunteers' enactment of Cody and Lela arriving by car for the first flight and the 100 year Fly Past that included a bi plane and Vulcan bomber. In the evening, we attended the local RAS lecture comparing Cody, Roe and the Wright brothers.

I was interviewed by my local newspaper, The Sentinel, Stoke on Trent, in April 2013 about my great grandfather and my connection to him.

In May of this year, John and I attended the Cody Statue Project Fund Raising Dinner and this August the unveiling of the Cody Statue as a permanent reminder of his achievements. Congratulations to the FAST team to have succeeded in building this prominent memorial.

Ronald George MILTON

Brick No. 919 in Square 4



Ronald George Milton was in 192 Squadron, working on Lancaster bombers, and was stationed in Burma during the Second World War. He died in 1968 aged 46.

George Albert MOCKRIDGE

Brick No. 336 in Square 38



R.A.F. 1941-1942

George Albert Mockridge born 1919 at Poole, Dorset. He went to R.M.A. Woolwich as a cadet in August 1937. He commissioned into the R.A. as a 2nd Lt. in the 3rd Medium Regt. R.A/. He

R.A.F. 1941-1942

George Albert Mockridge born 1919 at Poole, Dorset. He went to R.M.A. Woolwich as a cadet in August 1937. He commissioned into the R.A. as a 2nd Lt. in the 3rd Medium Regt. R.A/. He served with B.E.F. in France from Sept 1939, evacuated from Dunkirk May 31st 1940.

J B MOCKRIDGE

Brick No. 335 in Square 38



193471

Born Hong Kong 1921 – 1995.

Previous to call up in October 1939 after leaving School signed on as a ship's boy London docks, sailed to USA returning with became a Glider aeroplanes from California, then Home Guard, called up October.

He was at OCTU at Ikley commissioned into RA. He became a Glider Pilot in 1940, trained on fixed wing aircraft. Then Horsa and Wacko. 1942 sailed to N. Africa. Invasion of Sicily 1943, Southern France 1944, Greece 1945 with Popski Private Army
Independent Squadron of The Glider Pilot Regt.

Ralph MOORE-MORRIS

Brick No. 570 in Square 40



Buying a brick has meant to me that I could put my name on the same ground where Samuel F. Cody the great pioneering aviator flew, and to be there to see a memorial unveiled to his memory.

As I am only an aviation enthusiast, it is also a privilege to volunteer at the FAST museum alongside those who have been the very fabric of RAE, and aviation development in the UK.

Henry “Jack” MORLEY

Brick No. 124 in Square 7



January 1895 – January 1988

Henry Morley was apprenticed at fourteen to H. P. Blake marine engineers in Southampton. From 1909-13 he trained at Southampton Technical Training and Hartley University in mechanics, motor engineering and naval architecture and became a Consulting Engineer and Naval Architect, working as a Draughtsman for engineering and yacht/ship building companies.



In 1914 he applied to join the Royal Naval Air Service but the reply was intercepted by his family and he assumed that his application had been rejected. In April 1915 he joined the 18th Battalion Royal Fusiliers and undertook basic training at Epsom, Mansfield and Sidworth on Salisbury Plain before, in Autumn 1915, crossing the Channel and joining his Battalion in the Bethune area. After some stressful experiences in the trenches he became ill, following which he was returned to England. He subsequently applied for, and was accepted for, officer training, and having gained his commission applied to train as aircrew in the Royal Flying Corps in September 1916.

He commenced elementary flying instruction at Upavon on pre-war Farman Longhorn, Shorthorn and R.E.8 biplanes. He flew some circuits and landings under instruction, although at no time did he feel he had control of the machine. Then his instructor told him to go solo. Luckily he survived his first solo flight despite crash landing and collapsing his aircraft's undercarriage. Despite this, he was allowed to complete the required number of flying hours and landings and passed his elementary flying course. He was then posted to an Advanced Training Unit whose speciality was night flying. After gaining his “wings” in June 1917, he moved to a home defence airfield near Sunderland, practising night flying on BE2cs and FE2bs, as well as spotting for the artillery's practice shoots out to sea.

In September 1917 Henry joined 100 Squadron RFC pilots' pool at Ochey, North Eastern France. He flew several bombing missions in FE2bs, key targets being trains, junctions, stations and goods sidings on the railway line between Falkenberg, St Avold and Saarbrucken. He flew additional missions to bomb Menin station and key roads surrounding the area between Gheluvelt to Menin and Wervico, Gontrode airship shed and the Mazieres steel and blast works.



In January 1918 Henry was involved in RFC trials to carry more bombs in the FE2b in place of the observer. Unfortunately this seriously affected the aircraft's centre of gravity, making it completely unstable, and Henry was injured when the aircraft crashed on take-off. He was in convalescence for the remainder of the war, and so was one of the few night bomber pilots to survive.

After the war he returned to work as an engineering draughtsman and construction supervisor in various industries including, from 1927 to 1931, work for Shell Co. in Australia. In 1939 he joined the RAE's Mechanical Engineering Department. Henry had prime responsibility for designing, prototyping, supervising construction and trialling of a number of important projects during and after the Second World War up until his retirement in 1963, including:

- **Project Skylark** – High speed, single crew motor boat dropped by parachute from a Lancaster. Henry designed the aircraft installation and supervised construction and installation of trials. Commended by RAE's Head of Armament.

This was the forerunner of all parachuting of guns, jeeps and stores from aircraft bomb bays and the method adopted for the carriage of parachutes used with large stores. This parachute release device was patented by Ministry of Supply at home and abroad.

- **Project Wellman** – Design of installation for successful trial parachute drop of a one-man submarine from a Lancaster off Harwich.

- **Man Friday** – Design of a collapsible crate carrying three canoes and explosives for Commando raids.

- **Short term Freight Container** – 6,000lb crate urgently required for dropping ammunition and supplies for invasion in Far East - designed to Henry's specifications and prototype built in six weeks.

- **Airborne Lifeboat Mk 2** – Installation on Lancaster – urgently requested for use in the Far East. Produced by Messrs Cunliffe Owen with hardly any modification to Henry's original designs and prototype.

- **Universal Freight Containter** – "Paratechnicon" An 8,000 lb container fitted beneath a HP Halifax for parachuting a combination load of gun + jeep or jeep + trailer. Henry completed the design study and worked out production details with Messrs Short Bros. Parachuting trials successfully concluded.

- **7,000/12000 lb stores platforms** – for parachuting from rear-loading aircraft, produced for the airborne forces. Study and prototype designs by Henry and final design and details worked out in collaboration with Messrs Trianco. The platforms featured pneumatic landing gear and automatic tie-down release, dispensing with the need for a dispatch crew in the aircraft. Main success was the parachuting of a 1 ton truck at an all up weight of 13,360 lb.

Written by Julia Latham (Henry Morley's Granddaughter)
and information adapted from Henry Morley's own diaries.

James Blackstone "Jim" MORLEY

Brick No. 126 in Square 7



June 1930 – May 2010

Jim Morley trained and worked in the aircraft production industry for over twenty years, keenly following in the footsteps of his father Henry who had been a First World War bomber pilot and later worked at RAE Farnborough for many years. He later turned his hobby of building radio-controlled model helicopters into a successful business – Morley Helicopters Ltd – selling model helicopter kits worldwide.



Jim started his aeronautical engineering apprenticeship at Vickers Armstrongs in Weybridge in 1947, ending as a draughtsman in the design office in the early 1950s. He then worked in the Wind Tunnel department as a Technical Engineer on the High Subsonic Tunnel, testing Valiant and V1000/VC7 configurations among other Vickers programmes.

On National Service call-up in 1954 he was commissioned in the Royal Electrical and Mechanical Engineers. With his aeronautical engineering training, he expressed an interest in transferring to the Army Air Corps which was then trialling Bell 47 helicopters. However, with some irony he was instead posted to a Royal Artillery anti-aircraft unit.

Upon demob Jim returned to Vickers as a structural engineer on a number of aircraft development programmes in the late 1950s and early 1960s. Rigorous airframe structural integrity testing had assumed much greater significance in the aftermath of the fatal Comet aircraft crashes in 1953 and 1954. He undertook numerous life-cycle tests, mainly on undercarriage components but also including Vanguard wing sections. Most significantly, he was closely involved in life-testing of the complete VC10 airframe at Wisley where he had day-to-day responsibility for running the test rig, and was also involved in designing the rig's power plant. He simulated some 30,000 flights on the VC10 test airframe. Jim subsequently transferred to the Concorde airframe test rig at Farnborough, where he was the senior on-Site BAC Engineer responsible for the co-ordination of RAE and BAC construction and running of Concorde forward fuselage tests.

By the time Concorde was flying in 1969 Jim had left BAC to try the automation industry, working on design and manufacture of automatic assembly machines, but later left to become a freelance engineering designer.



Jim was one of the pioneers of model aviation, from the 1960s into the early 1970s he experimented with radio-controlled model helicopters utilising his research on the Bell 47 undertaken to get into the Army Air Corps during his National Service. He designed and built one of the first working radio-controlled model helicopters – considered not possible by many

people. In 1973 the first radio-controlled helicopter event was held in the UK and Jim's model was judged the best new helicopter. When this was reported in the modelling press he received hundreds of letters from people around the world wanting to build their own helicopters. This was the beginning of Morley Helicopters Ltd. Jim was the first to make plans and kits available at prices which the ordinary enthusiast could afford. He also designed and manufactured a tail rotor gearbox that the average hobbyist could assemble. Many of these classic models can still be seen flying at scale events today.

Morley Helicopters expanded and eventually settled at Fairoaks Airport in Surrey. At one stage the company was selling over one thousand kits a year, and exporting 75% of output. The company's range included accurate scale model kits of many full-size helicopters including the Hughes 300, Bell 47, Jet Ranger, Huey, Huey Cobra, Westland Wasp/Scout and Lynx, as well as home-designed sport models. As testament to Jim's design skills his Augusta 109 model featured a retractable undercarriage, considered quite advanced for the day.
Jim remained a dedicated and innovative engineer and would often travel to model helicopter fly-ins where he would demonstrate his early models. He also found time to design and build some interesting one-off development models including a Fairey Rotodyne ("quite a handful" to fly in strong wind) and a V-22 Osprey which was capable of a reasonable hover although not transition to forward flight. These models attracted great interest, but owing to their complexity neither model entered production. His Fairey Rotodyne model is currently on display at the Aeroventure, South Yorkshire Aircraft Museum. Jim was also commissioned to build parts and models for industry, one example was the Lynx scale model he built for Westlands as a training aid. His models were also one of the first to be adapted to hold photographic equipment.

One of Jim's proudest achievements was a 1/12 scale non-flying replica of S F Cody's pioneering British Army Aeroplane No.1 flyer biplane of 1908, for which he was awarded a silver medal at the Model Engineer Exhibition in 2008. This model's detail was considered so accurate that it was used as reference for Farnborough Air Science Trust's full-size Cody Flyer replica. Jim's scale model is now on loan by FAST to the Army Air Corps Museum at Middle Wallop.

Written by Julia Latham (Jim Morley's daughter) and information taken from an account written by his friend and fellow aircraft enthusiast Nigel Fraser Ker.

Judith and Stuart MORRISON

Brick No. 612 in Square 35



Judith is David Wilson's sister and remembers the day in 1954 when he left home to go to Farnborough as an apprentice. Ever since she has followed his career; first as a student, then RAF Officer for three years and later rising through the ranks of the Civil Service. She is proud of her big brother and has always been interested in what he is doing.

Whenever possible we have both supported the FAST museum and enjoyed visits to it. We are particularly impressed by the work which the volunteers have done to construct the replica of S.F. Cody's aircraft and to place a statue of him on public view.

It is a fitting memorial to the man who, on 16th October 1908, kick-started aviation in Britain with his first 27 second flight on nearby Farnborough Common. That flight and Cody's subsequent, but sadly short lived, work, drive and determination propelled Britain into being an authority in aviation and made the name Farnborough world famous.

Dr Brian Percival MULLINS & Margaret Fiona HOWELLS

Brick No. 34 in Square 16



Our parents, Dr Brian Percival Mullins & Margaret Fiona Howell, both worked at the RAE in 1943. They were married in 1944. Our father was attached to Power Jets Ltd as a member of Whittle's Gas Turbine team, and our mother was in Aerodynamics Dept working in the wind tunnels.

Our father then worked at the NGTE becoming the first head of Chemical Physics Dept in 1952. He returned to the RAE as Head of Chemistry Dept in 1960 and became the first head of Chemistry, Physics & Metallurgy Dept in 1962 and Head of Structures Dept in 1967, when Concorde was being developed.

Meanwhile our mother had brought us up and then returned to the Farnborough Technical College as a lecturer in Aeronautics. They were always interested in the history of aviation and in Cody's connection with Farnborough.

Our father died in 1990, but our Mum is still alive, having moved recently to a Nursing home near Winchester. This means that her house in St Michaels' Road is being sold.

Tony MUNDELL

Brick No. 608 in Square 27



RAE/DRA/DERA/QinetiQ, 1962-2004

I spent my entire career of 42 years in Aerodynamics Dept at RAE and its successors. For most of that time I was involved with wind tunnel tests. In my first few weeks I was assisting with tests at Mach 2 in the Ball Hill 18 inch tunnel on a model of a design by Sir Barnes Wallis for a supersonic airliner called Swallow.

At that time there was also much work underway to refine Concorde's design. One problem was the possible sensitivity of slender deltas to side gusts and I recall watching small models being fired by catapult diametrically across the open airstream of the 24ft Wind Tunnel.

I conducted tests at high supersonic speeds to measure the stability of the Black Arrow satellite launcher. The second stage was scheduled to ignite after a period of coasting following separation of the first stage. With the very low dynamic pressure at high altitude there were concerns that, even if aerodynamically stable, it might tumble over if given a 'kick' at first stage separation. Using the wind tunnel results I was able to calculate the dynamic response of the second stage for various initial starting conditions, such as pitch rate.

I also worked on a phenomenon that imposes an upper limit on the safe angle of attack that fighter aircraft can reach. Beyond a certain incidence angle the pair of vortices shed from a sharply pointed nose suddenly become asymmetric, twisting around each other. This leads to a huge side-force and yawing moment likely to provoke a spin. The direction of this force depends on whether the vortices twist clockwise or anti-clockwise, and that in turn depends on really minute asymmetries in the tip of the nose shape. By putting a pair of tiny holes right at the nose tip of a wind-tunnel model and blowing air from one or other of the holes I found I could control the unwanted side-force.

For a while I was in a section researching the shaping of the back 'afterbody' of jet aircraft with the jet simulated. I also designed a rake of probes to be swung across real jet exhausts, even with full afterburner, that enabled the thrust to be measured.

With wind tunnel models I helped to confirm the benefits of winglets that are now commonly seen at the tips on many commercial aircraft. I was also involved with programmes testing

wings with M and W-shaped planforms. These can have excellent aerodynamic performance with very benign stall characteristics but there is a trade-off with extra structural complication and weight.
After moving to the 5m Wind Tunnel I joined a European collaboration to research how wind tunnel measurements should best be corrected for the unwanted flow interference caused by the physical support system that holds the model in place. Later, as stealth became increasingly important for military aircraft I managed programmes to research the trade-off between stealth and aerodynamic manoeuvre performance.

RAE had an impressive range of wind tunnels at both Farnborough and Bedford, covering the full speed range from low speed to hypersonic speeds and I conducted tests for various programmes in virtually all of them. Sadly, apart from what is now the QinetiQ 5m Tunnel, none of these facilities are still used and most have been scrapped.

Reginald H NASH

Brick No. 58 in Square 28



My sister and I know very little about our Grandfather, but we recently came across a book called “A Contemptible Little Flying Corps” by I McInnes and J V Webb that gives a brief biography of his life in the RFC and RAF. We learned that he joined the RFC in 1912 as a carpenter. We know that he must have joined up in Farnborough and worked on the RAE site because he was living in South Farnborough at this time. He served in 5 Squadron with the British Expeditionary Force in France in 1914 and 1916. From 1917 to 1918 he served with the Egyptian Expeditionary Force. His character was described as “very good”. He was promoted to Technical Sergeant Major in 1917 and, after transferring, he was Chief Master Mechanic (Technical) in the 1918 RAF muster roll. In the RAF he worked as an aero-rigger and his ability was shown as “superior”. He was awarded the RAF Long Service and Good Conduct Medal in 1930. He was discharged in 1936 “with a view to a pension” having completed 23 years 11 months service. The book tells us that our Grandfather formed part of the procession at Colonel Cody's funeral. He had kept photographs of the procession, airships and aeroplanes, including Cody's planes, which are now in our possession. We think that he must have had a passion for aeroplanes; after all, he was living in very exciting times as far as aviation was concerned! We feel sure that he passed on his interest to his son, our Father Kenneth Nash. Dad was a pilot in 450 Squadron during the Second World War and later worked for BOAC as a flying instructor until his retirement. He got great enjoyment from flying for the Air Training Corps for many years, reluctantly giving up for health reasons.

When my husband and I visited the museum recently we were moved to see the original headquarters building, the workshops and airship hanger that my Grandfather would have seen a hundred years ago. It is likely that he even saw the original of the Cody Flyer so beautifully rebuilt in the museum. We were thrilled to see my Grandfather in a photograph in the RFC display and absolutely enthralled by the story of Colonel Cody. What an amazing man!

We are continuing our research into our Grandfather's life and, as yet, we do not know if there is any memorial to him. The commemorative brick to be laid at Cody's statue represents the perfect opportunity to honour and remember him. We welcome the chance to celebrate his life and the life of Samuel Franklin Cody.

Ron NEAL

Brick No. 1087 in Square 52



I was employed at Pyestock, including my apprenticeship from 1969 until the sites sad closure in 2002. I worked down the old site from 1973 until 1977 under the leadership of such notables as H.S.Os John Drabble, Harold Clare and Jim Bamford, on various combustion rigs, including the Romney wind tunnel, during the early Tornado trials.

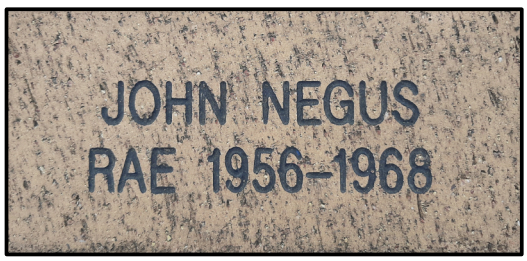
A transfer to the new site in 1977 saw me involved in various programs in the Battlehouse, Noise Test Facility, cells 1 & 2, cell 3 and cell 3 west; before going to the Admiralty test house in 1996 to conduct tests on the new aircraft carrier engines being developed by Northrop Grumman and Rolls Royce. This included Nimrod salt trials in the October of 1999 at the Glen test house.

Final closure of Pyestock came early 2002 with some frantic last minute testing of the EJ200 engine before we said our last goodbyes and brought down the curtain on 55 years of Aero Engine testing at N.G.T.E. Proud and happy memories remain.

Ron Neal (Tech/Eng)I.S.M

John Patrick NEGUS

Brick No. 1051 in Square 52



1956–1962: Apprentice at Royal Aircraft Establishment (RAE), Farnborough

At age 15, I commenced an apprenticeship at the Royal Aircraft Establishment (RAE) in Farnborough. Over the six years, my training included basic machining, fitting, sheet metal

work, time in the foundry and forge, as well as hands-on experience with welding, tooling, and the manufacture of wind tunnel models and aerospace components.

1962–1965: Toolmaker, RAE

Upon completing this apprenticeship, I qualified as a Toolmaker, manufacturing wind tunnel models, templates, jigs, and fixtures for aircraft testing, utilising a range of machine tools, including CNC-controlled equipment.

1965–1967: Machine Shop Chargehand, RAE

Promoted to Machine Shop Chargehand, I supervised 30 to 40 skilled machinists responsible for the production of aircraft and missile components. During this period, I also served for six months as Acting Assistant Machine Shop Foreman (Technical Grade 3).

1967–1968: CNC Programmer and Planner, RAE

As a CNC Programmer and Planner (Technical Grade 3), I compiled CNC programs, delivered detailed planning documents, and developed tooling for advanced machining processes using AEI Planetrol, Ferranti Mk 4C, and NEL 2DL systems, as well as manufacturing 3D models. I also regularly assisted in lecturing on CNC machines for industry.

1969–1972: Production Engineer, Marshall of Cambridge Engineering Limited

I joined Marshall of Cambridge Engineering Limited in 1969 as a Production Engineer I was responsible for planning and tooling related to machining tasks and the production of aircraft components.

1973–1976: Deputy Chief Planning Engineer, Marshalls of Cambridge Engineering Limited

In this senior role, I oversaw complex engineering projects, coordinated planning operations, and contributed to strategic process development. Notably, I worked on components for Concorde nose assemblies, Rolls Royce RB211 parts, McDonnell Douglas Phantom F4E leading edge slats, SAAB Viggen wings, C130 aircraft, and armored vehicle turrets, among other significant projects.

1976–1979: Assistant Chief Production Engineer, British Leyland Special Products, Prestcold Division

As Assistant Chief Production Engineer (Compressor Manufacturing), I evaluated and recommended optimal manufacturing methods and equipment, focusing on quality, and cost-efficient manufacturing.

1979–1981: Production Service Manager, British Leyland

Appointed Production Service Manager (Corporate Grade), I managed production engineering departments, tool rooms, maintenance, and service teams across a four-acre site with 1,200 staff and approximately 400 machine tools. During this period, I completed numerous management courses and conducted fact-finding visits across the UK and Europe.

1982–1991: General Manager, A&P Tools and Products Limited (Ademco Dry Mount Group)

As General Manager I was responsible for a precision engineering division employing 55 staff. I secured AQAP 4, BSI 5750, and ISO9002 accreditation, enabling the company to serve major MOD and oil industry contracts. I introduced high-volume CNC turning and milling capabilities and oversaw product design, subcontract manufacturing, and supply to clients such as British Aerospace, Fairey Hydraulics, BP, Halliburton, and various Formula 1 teams.

1991–2014: Managing Director, A&P Tools and Products Limited

I continued my leadership as Managing Director, directing business operations and strategic growth.

2014–2018: Part-Time Consultant

Upon retirement as Managing Director, I remained with A&P Tools and Products Limited on a part-time basis. I managed the company pension fund and produced monthly trading reports for the organisation.

John Negus
15 November 2025



1956 RAE apprentice intake – RAE Technical College Class CG3B in 1958
David Kaynes ????? J. Callingham J Peel Mick Hobbs A Ellis Hugh Trotter
N Bone N Hardy M Fitzgerald C Fisher D Clark
D Gough George Kraus B Mellham John Negus



Q65 Building RAE Toolroom 1959

John Negus operating Huron milling machine

Charles “Herb” NEVILLE

Brick No. 818 in Square 33



Charles “Herb” Neville trained as a Gardener. During World War II he worked in Southampton on aircraft and other duties. After the war he returned to gardening, working at The Officers’ Mess in Arborfield for 7 years, and Minley Manor for 7 years. Afterwards, he went to work for a gardening company and then started working for himself. In the early 1970s he had to quit work to look after his family.

Squadron Leader Ben NEWMAN MBE RAFVR

Brick No. 104 in Square 40



First Flight

Some memories are dim and when you're trying to remember an incident from a young age they are very dim. But in the family lore there is told of one thing that happened to me when a toddler which caused quite a stir. I was fascinated, apparently, by the birds flying outside the bedroom window. One day, left on my own upstairs I decided that what I wanted, was to fly like a bird. I got a chair, clambered onto the top banister rail and launched myself off, flapping my arms wildly. Luckily for me, my father had just entered the hall, looked up and caught me as I fell. After we had both been helped up I had a painful talk about something called the force of gravity, with the stern admonition that the only way I would ever fly was in a balloon, an airship or an aeroplane and it was very unlikely I would ever get the chance to do any of those. This talk was repeated at various times while I was growing up, but I did see the Graf Zeppelin sailing majestically over Surrey and was taken to see a bi-plane that had come down in a field near Farnham. The closest I got to flying was making models. When war was declared this did not affect us children very much, but the early war years changed the models to scale aircraft of the RAF and the Luftwaffe.

In 1944 my father managed to obtain a position for me as a laboratory assistant at the Royal Aircraft Establishment at Farnborough. I was employed in the Test Instrument Laboratory in Building 34. The task of this laboratory was to evaluate electronic equipment used to test aircraft and weapons. This included some of the very latest technology recording equipment from the USA.

My job was to assist the engineers to do anything they thought I could usefully do. This included wiring circuits, keeping the benches clean and tidy and looking after the component stocks. I also helped other laboratories when they wanted an extra pair of hands. This sometimes became quite interesting, for example, when I helped to unravel the way the Germans had made a very light high air pressure vessel which was used in the V1, the 'Doodlebug'.

One day I was asked to help an engineer to take some equipment out to the flight line and install it in an Avro Lancaster. This was the first time I realised that part of the evaluation process, involved actually carrying out flight-testing. I was issued with a pass enabling me to access the airfield, which was under tight security because of the numbers of captured German aircraft that were parked there.

After that flight had taken off and landed after a couple of hours, I went to Dr Bennett, the Head of the Laboratory, and asked whether it would be possible to have a flight next time. He said that would be possible, but first I would have to get a signed release from one of my parents.

My mother signed the release, although I gave her a lot of double talk about what it was for. She actually did not have the faintest idea that she was allowing me to fly.

I took the release back to Dr Bennett who told me the next time the laboratory needed a flight test I could go along. First I had to pass a medical check, which was no problem; also attend a briefing to be shown how to put on the chest type parachute harness, with a talk on aircraft emergencies and what to do if I actually found it necessary to clip on the parachute and exit the aircraft.

Finally came the day, the one I had been waiting for with high anticipation and not a little trepidation. Two engineers were doing the flight test of an American multi-channel recorder, checking airframe stresses. I was told I could go. We went out to the flight line where the Lancaster waited, with the two-wheeled battery trolley under the fuselage with ground staff in various positions. I was told the pilot was already on board carrying out his pre-flight checks. Before the flight I was helped into a parachute harness and given the parachute itself, together with headphones and a microphone mask, plus two small folded green envelope type bags. I was told these were called 'barf' bags, in case I was sick. I was helped into the fuselage of ED872, the red number on the rear fuselage of the Lancaster and told to get into the forward gun turret. I went forward, climbing over the main-spar and past the pilot, Flt Lt Haines and the RAF Flight Engineer into the front gun turret. I was shown by the Engineer the controls to rotate the turret and elevate and depress the unarmed machine guns, but was told I could not operate the turret until the right inner engine had started. I plugged the intercom lead into its socket and put my headphones and mask on.

It seemed to take a long time for everyone to get settled and then I heard over the intercom the pilot, calling up each position in turn to see that they could hear him. I quickly worked out what was happening so when the voice on the intercom said. 'Front turret.' I clicked the microphone button down and responded. 'Front turret, clear, skipper.' I looked around so that I could see what was going on. Then one of the propellers started to turn, followed by a shuddering roar and streams of smoke from the engine. One by one the engines started. We didn't move for some minutes while the engines were warmed up. Then I heard the pilot. 'Farnborough tower, this is 872, request taxi clearance.' I did not hear the answer but we started to move with the engines revving slightly higher. We moved along the taxiway until we stopped just short of the main runway. One by one each engine was increased to full throttle then idled. I heard the pilot again. 'Engineer, check fifteen flap,' then, 'Tower, 872 requesting take off clearance.' We moved onto the runway and turned to face down its length. I could see down the long black expanse with lights shining at each side, stretching away into the far distance. It wasn't really flat, which surprised me.

We moved slightly and I felt a surge with the vibration and sound of those mighty Merlin's, as the pilot pushed the throttles fully open. We gathered speed, faster and faster, the tail came up and I could see the end of the runway now. The rumbling of the wheels faded and the ground fell away as we crossed over the airfield perimeter. I heard the pilot again. 'Wheels up, check two reds,' then, 'check flaps up.' I saw the wheels retract and I knew the flaps had moved up to merge cleanly with the back of the wing.

We carried on climbing, banking away from the airfield, to carry on flying up to 3,000ft over the south of England. In the turns I felt the G loading pulling me down in the seat and sometimes the slight feeling of weightlessness, from the effects of the thermal currents, when we passed under a cumulus. I suddenly realised, this is what I had wanted to do, ever since I had seen those birds when I was a toddler. I was finally up in that three dimensional

environment, flying. I was beating the force of gravity, although it had taken four Rolls Royce Merlins and metal wings. I felt a tremendous feeling of elation as the horizon tilted first one way and the other and the feeling of flying above all the people on the ground, which was set out with the fields, roads and houses looking like miniatures. Large towns were easy to see and looked very close, although I knew they were not. I was fascinated. I wondered what my father would say when I told him that I had finally achieved what he said I was unlikely to do. I hadn't been taking much notice of what was going on over the inter-com, but I heard my name being called, one of the engineers, asking. 'Can you come back and give us a hand?' I clambered out of the turret, made my way back past the pilot who gave me a nod, the flight engineer who moved out of the way and over the bulk of the main-spar into the near darkness of the rear fuselage. I was given a quick briefing and then operated an oscilloscope recorder and took notes while the pilot did some very tight turns to test our equipment.

When that was done I got up into the top gun turret with a quite different view, looking forward over the crew's canopy. I was so interested in looking around that I wasn't listening to the talk on the intercom, but all too soon we were in the Farnborough circuit as I heard the pilot again. 'Farnborough, 872 downwind.' Then turning, 'wheels down, check two greens' followed by, 'check full flap.' I watched the flaps at the back of the wing turn fully down. Then we were on final approach to the runway, engine noise decreasing. 'Farnborough, 872 on finals.' I looked ahead as we lined up on that long expanse with all the approach lights shining. The view ahead was obstructed for me by the bulk of the forward fuselage and the pilot's canopy. We touched down with a bump and I felt the sudden slowing as the brakes were applied. The pilot spoke again. 'Check flaps up.' We taxied back to the hard-standing. The engines were shut down and everything suddenly seemed very quiet except for the ringing in my ears. I helped unload the test equipment and handed in the flying gear I had been issued. It was the most emotional occasion ever for me, that first time. There was an unexpected outcome, when Dr Bennett took me on one side and told me that he had received a good report of my assistance on the flight, so from now on I would be expected to work while I was flying and gave me a card identifying me as a Flight Test Observer. I was sixteen and proud as a peacock.

I did a lot more flying at the RAE until it all came to an end in 1946. I did fly again, later in my life, but nothing ever came close to that momentous first flight in Avro Lancaster ED872.

Arthur NICKLEN

Brick No. 580 in Square 4



R.A.E. 1946-1979

My dad , Arthur Nicklen, and his brother George joined the R.A.F in the 1930s.

For a long time during the Second World War he was stationed in the Indian ocean (on Mauritius).

He was part of the ground crew keeping the Catalina flying boats in the air. The aircraft were used to attack the Japanese submarines that were operating in that area.

For a while, during the war, my dad was seconded to the R.A.E from the Air Force. After the war, in 1946, his full time employment began at the Establishment.

As a boy I remember him talking to me about Cody. On one occasion he took me to see the preserved remains of Cody's tree.

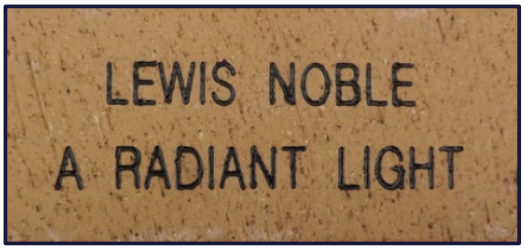
He was also fascinated by the 'Flying Bedstead' which mostly operated at R.A.E Bedford and was used for 'Vertical Take-Off And Landing' experiments.

My dad once had the opportunity to be a passenger in a small military jet they had been working on. He and the pilot passed twice over a Scottish loch before returning to Farnborough after the test flight.
In later years he was an 'Experimental Fitter'. He was sometimes involved with installing test equipment for the 'Fly By Wire' experiments taking place at that time.

His brother, George, also had a long career at the RAE. My dad passed away in 2003. George is now in his nineties.

Lewis NOBLE

Brick No. 156 in Square 23



My Father Bruce Noble and my Father in Law Hugh (David) Benson both served at the RAE over the years.

My father worked in the design office at Saunders Roe (later Westlands) on the Isle of Wight and worked on the Princess flying boat and hovercraft manufacture. He attended SBAC displays to exhibit products and at other times to oversee testing. He emigrated in the late 1960s to work for the ATLAS aircraft corporation in South Africa and Italy where he was the ATLAS project manager on the South African Air Force C4M Kudu light liaison aircraft which was built under license from Lockheed. He is a member of the Royal Aeronautical Society and Institute of Mechanical Engineers.

My Father in Law worked as a mechanical electrician for a number of aircraft related companies such as Huntings and BAE, working initially on nuclear related weaponry and then missile guidance systems. A lot of testing work was undertaken at the RAE, especially during SBAC displays which involved Eastern Block aircraft calibration for weapon systems.

I thought it appropriate to keep their memory alive through a grandson and great grandson - Lewis Noble - who was born on 10 July 2009.



Above: Bruce Noble (bending)



Below and inset : Hugh (David) Benson



George NOKE

Brick No. 779 in Square 10



George Noke was born and lived in Mytchett all his life. Except for the years during World War II when he served with the Royal Military Police. Serving his time, firstly at Inkerman Barracks, St John's, Woking, then in Germany. Upon his demob from the Army, he worked for RAE, in the Police Department until he retired at 65 years. After approximately 40 years of service, George died aged 74 years.

NORTHERN KITE GROUP

Brick No. 821 in Square 33



We recently purchased a brick for the Cody Statue Project and you asked for a few words about ourselves.

The **NORTHERN KITE GROUP** is for anyone interested in building and flying kites. The Group caters especially for those living in the Yorkshire / Lancashire corridor of towns stretching from York to Liverpool, although it is open to all and has members from all over the UK.

The Club has been in continual existence from 1978 and our members have acquired a great deal of experience which is freely shared among members.

We have members of all ages, whose skill ranges from complete beginners to those who earn their living from making and selling kites.

We meet on the third Sunday of the month at different flying sites in our region. Many of our members attend Kite Festivals both in the UK and abroad.

As a kite flying group we thought it would be a great idea to support the Cody Statue Project, especially as August 2014 will be the anniversary of the outbreak of the First World War. To mark the event, at a kite festival in May the NKG will be having a mass fly of “Cody Kites” which were used by the British during the war. The kite, designed by Samuel Franklin Cody was used to lift men into the air for the purpose of military observation.

Gerard O'CONNELL

Brick No. 679 in Square 3



RAE Bedford 1962-93

Dad started at RAE Bedford in 1962. To take advantage of this opportunity my parents moved from Watford to Sharnbrook. My Sister Sharon was 2 years old at the time.

Predominantly Dad worked as an Instrument Maker in the Light Engineering Department, which was an Annex of the Main Workshop. As an Instrument Maker he built, rebuilt and repaired various instruments, including rolleiflex cameras used for Aircraft Reconnaissance.

For many years Dad was a Shop Steward for the AUEW (Amalgamated Union of Engineering Workers).

He was also involved in the manufacture of many Parts and Sections for Wind Tunnel Models, including some of the first wing sections of Concorde. These particular sections were large so the work was performed in the body of the main workshop.

Dad was involved in both the machining and hand finishing of these wing sections, along with the inlaying of hypodermic tubing into the wing sections, to allow Pitot testing to be performed. Pitot testing is a method of measuring pressure, in this instance a test in the Wind Tunnel to measure lift at specific positions on the wings.

For many years Dad was also an Apprentice Master for third and fourth year Mechanical Apprentices, who were studying to be Instrument or Tool Makers.

After 31 years at the RAE Bedford Dad retired in 1993.

As a result of Dads enthusiasm, both my brother Shaun and I worked at the RAE Bedford. Shaun worked as Ground Services and I was a Mechanical Apprentice.

Dad was proud to be a part of the Royal Aircraft Establishment Bedford and enjoyed his role as Instrument Maker and his involvement in Aviation History.

Kevin O'CONNELL

Brick No. 676 in Square 3



Apprentice Mechanical Fitter - RAE Bedford 1979-1983

On the 2nd of September 1979 I started as a Mechanical Apprentice at the Royal Aircraft Establishment Bedford. The next day I signed the Official Secrets Acts, I was 16 years of age.

The First Year Mechanical Apprentice School was in an Annex of the 3ft x 3ft Supersonic Wind Tunnel, which at the time was not in use.

This year was spent learning the basic skills of Turning, Milling, Shaping, Drilling and Filing. Friday morning however was Physical Training at Mander College Bedford or Swimming at Robinson Pool in Bedford.

Year two was spent in the Second Year Mechanical Apprentice School which was in a corner of the vast Main Workshop. During this year we learnt more complex machining such as Gear Cutting, Helical Milling, Copy Turning and Grinding.

The next two years were incredible! 18 months was spent moving around both the Wind Tunnel Site and Airfield at Bedford. The final 6 months was spent as a Model Rigger in the 13ft x 9ft Low Speed Wind Tunnel (Now the Red Bull Wind Tunnel).

On the Wind Tunnel Site I had placements in the 3ft x 3ft Supersonic Wind Tunnel, 8ft x 8ft Wind Tunnel, Vertical Spinning Tunnel and Welding Shop

Whilst on the Airfield I had placements in the Hangers, Flight Simulators, Electronics and Electrical. When I was in the Hangers I worked on many Aircraft such as Nimrod's, Canberra's, Harrier, Gnat, Buccaneer, BAC 111, BAC 125, VC10, Viscount, Wessex and Puma Etc.

During my years at the RAE Bedford my biggest privilege by far was being crewed on Nimrod XV148, which was decommissioned shortly afterwards.

Concurrent with my Apprenticeship I attended Wellingborough Technical College and in 1983 I was awarded a Higher Level National Certificate in Mechanical and Production Engineering.

At the end of my Apprenticeship I left the RAE. At this time the Ministry of Defence was being forced to make cuts and only a few Apprentices were taken on.

Although I was only at the Royal Aircraft Establishment for 4 years, it's something I think about daily. I feel so privileged to have been part of the RAE and Alis Apta Scientia.

Shaun O'CONNELL

Brick No. 691 in Square 3



1987-1993

In June 1987 I was 18 years old and began work at the RAE (Royal Aerospace Establishment) at Thurleigh, Bedfordshire. My father J. G. A. O'Connell was a light engineer in the main workshop and had been since the 60's and my brother K. A. O'Connell had just completed his apprenticeship on the tunnel site also.

I began as a craft auxiliary in the 8x8 ft wind tunnel, assisting engineers with the rigging of models to be tested in the working section. I mostly mopped up thousands of gallons of hydraulic oil that leaked from the hundreds of jacks that moved the working section floor and ceiling (it was cheaper to replace the hydraulic oil that repair all the leaks). I continued to work at the 8ft tunnel for about a year, until I applied for an internal vacancy as a Ground Serviceman Grade B.

Once on the airfield working at hanger 3, I learnt how to fuel, marshal, tow, store and start a multitude of aircraft from Lynx, Sea-King and Wessex helicopters to Tornado, Canberra, Hawk, Viscount and BAC111 planes. I also marshalled thousands of visiting aircraft with many dignitaries including on occasion the Queens Flight 146 jets, the Red Arrows and numerous SAS Military in their Augusta helicopters.

I worked as permanent crew in 3, 4 and 2 hangers often marshalling in and out the Farnborough Ferry which on occasion was the wonderful DC3 Dakota maintained and owned by Farnborough.

Once I passed my HGV class 1 I became a Grade A Ground Serviceman and spent my last days with the MOD working at Hanger 2 at Thurleigh Airfield until in May 1993 when I was made redundant in a wave of defence cuts. My Dad was offered and took early retirement and we both left on the same day. Then the poor RAE became the DRA (Defence Research Agency) – the end of an era.

Even today I look back at my MOD experience and wish I was still there having lunch with my Dad in the subsidised canteen. What a great job with some amazing 'old school' people, back when Britain led the way.

Gerald ODAM

Brick No. 698 in Square 26

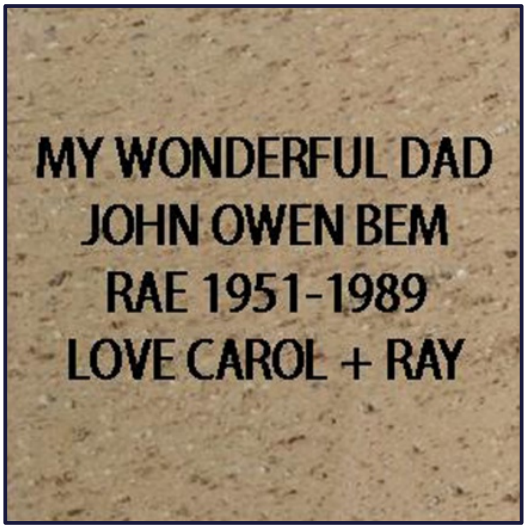


Gerald Odam, known to friends and family as Gerry. He started his RAE apprenticeship on 30th September 1946 and completed it 7th September 1952. He retired from the RAE as a SSO on 16th December 1988.

His speciality was Lightning Hazards to Aircraft and he continued to work internationally in this field as a independent consultant right up to his death in June 2009.

William John OWEN

Brick No. 1089 in Square 54



William John Owen (known as John) was born on 12th August 1925 in Beckenham Kent. His father, a hopeful local politician, was a stained glass worker and his mother was a manageress

at the Aerated Bread Company Ltd in London. Interestingly the ABC was the forerunner of the Chorleywood process that gave us the first mass produced bread and the sliced loaf.

When John left school in 1939 he did not follow either of his parents in the choice of job. World War 2 was soon to break out and 14 year old John took casual jobs, one helping a pig farmer, until he joined the Home Guard based at Henley Fort in Guildford, Surrey. Henley Fort is a Victorian fort on the Hog's Back and was used in WW2 as a re-supply depot. A few years ago John revisited the fort for the first time since he was 16. The buildings are now preserved as an activity centre for youngsters to learn about their wartime use.

In 1943 at the age of 17, John joined the Rifle Brigade and his active service soon began at Tilbury docks. Unknown to him and the hundreds of other soldiers leaving on 6th June, he found he was to take part in the Normandy Campaign and the D Day landings. He landed on Gold Beach in Arromanche, France on 7th June. He suffered extreme sea sickness which was very disabling for him but he was there to fight. His batalion moved through the almost impossible Bocage country and advanced further south into France. A shrapnel wound to his shoulder took him out of service for three weeks, recovering in Edinburgh Royal Infirmary, after which he rejoined his regiment moving through France and up into the Ruhr Valley. At one time he was given promotion and took a job as a Batman.

After the war ended John moved to Guildford and in 1949 met his future wife Una in the tea queue at the 'Over 18's ' club. He worked in the Post Office until 1951 when he married Una and later became father to three daughters. He was a great family man. He joined the RAE in 1951 and started his career in the Aircraft Department as a ground serviceman.
John enjoyed his work at the RAE especially his involvement with the airshows each year. He worked with the pilots and teams such as the Red Arrows and the Red Devils. He also sadly witnessed the tragedy when, on 6th September 1952, John Derry was piloting a de Havilland DH 110 prototype plane. The plane broke up and crashed after reaching the sound barrier. The tragic death of the 2 crew and 31 spectators, as well as 60 more injured, was shocking for him to experience.

In 1981 he became a PGS (D) and he completed his service as Air Ground Controller in charge of all the documents connected with aircraft maintenance, fueling and of the procurement of aircraft spares. His work suited his personality. He was methodical, neat and tidy and took pride in what he did.

John retired from the Aircraft Department in 1989 after nearly 39 years of service at the Farnborough Establishment. A few months later he was proud to receive a letter, to be kept secret, telling him that he would be in the New Year's Honours list. He was presented with the British Empire Medal by the Honourable Alan Clarke MP the following April.

John went on to have a very, long and happy retirement still keeping a keen interest in aircraft. His retirement lasted 28 years and he and his wife Una took the opportunity to travel to Egypt, America, Italy and France.

George PAISH

Brick No. 374 in Square 13



Royal Aircraft Establishment 1955 to 1989

I joined the R.A.E. in 1955 as a Labourer/Dolly Boy to a Sheet Metal Workers' section in Experimental Aircraft Servicing Department (E.A.S.D.) which later became Aircraft Department. I was first based at Hill Top in the middle of the airfield and then in A shed with Sheet metal Worker Jeff Jennings.

In 1958/59 I was promoted to Progress Chaser for Aircraft Department, working closely with Bev Mackey and Percy Cutler in P8 Building, with Arthur Puttock in N and D hangars, with A shed, C shed and V Bomber Flight with Fred Miller and Rex Lee, in E hangar and the Empire Test Pilots' School (E.T.P.S.) and in Base Workshops with Percy Johnson.

Working alongside Mr. Puttock, I had working access to quite a number of his old colleagues who had been promoted through the years along with him after WW1 and held senior supervisory positions in a number of departments; this I considered as an adult apprenticeship which stood me in good stead for the rest of my time at RAE. During this time, part of my work was to collect drawings from various drawing offices (S.M.E., Rad/Nav, etc.) and a lot of installation work was then being made for Comet XN453. I told a number of draughtsmen that we could make the equipment in Base Workshops and bypass Planning Dept.; this, I think, was the reason why Base Workshops grew over time.

Robert Henry PARFETT

Brick No. 330 in Square 38



Robert Henry Parfett joined the R.A.E. in 1935 and completed a period of continuous employment for 35 years. His final post was as Principal Foreman of 38 Department, which was the main Fitting Workshop, and ended on his retirement in April 1970. His period of service was acknowledged by his being awarded the M.B.E. which was presented to him by The Queen.

Charlotte and Daisy PARSONS

Brick No. 682 in Square 3



Charlotte Parsons was born on 25th July 2000 and Daisy Parsons on the 26th of February 2003, both in the little sedate hamlet of Walditch, near Bridport, Dorset. As they enter adulthood it is hoped that they will appreciate the significance of Samuel Cody's pioneering work in the field of aviation, from people-carrying kites and balloons to heavier-than-air machines. They will join other supporters, not only those that were associated with aviation in all its facets, but local pupils and staff of other schools. From now on both girls will have a life-long involvement with the Samuel Cody Project.

Andrew PARTRIDGE

Brick No. 208 in Square 39



Andrew Partridge joined the Telemetry and Telecommand section in Space Department in 1979, just as the RAE's technology satellite programme was being wound down. The section was looking for pastures new and got into the field of Unmanned Aircraft / Remotely Piloted Vehicles / drones. Small pilotless reconnaissance aircraft intended for support of artillery and infantry were developed in-house and extramurally, and trialled both inn the UK and, in 1985 and 1986, in Suffield, Alberta. Andrew worked on ground control and navigation aspects.

From 1987-89 Andrew worked in Radio Navigation Department on the application of speech recognition technology in fast jet aircraft, including the development of a data base of

utterances made under g in the RAE Bedford Tornado, and preparations for flight trials of an experimental speech recogniser developed by Marconi.

In 1990 Andrew was transferred to Special Weapons department to work on improving the survivability of our Skynet communications spacecraft to anti-satellite attack (this was still during the Cold War!), which involved liaison with the US Strategic Defence Initiative (Ronald Reagan's 'Star Wars' programme). This led to collaborative work on Ballistic Missile Defence issues drawing on experience from past UK programmes. Andrew continued in this line until his departure from Dstl (which took on the BMD work in 2001) in 2005 to become a Physics teacher at Farnborough Sixth-Form College.

Bob PARTRIDGE

Brick No. 224 in Square 39



Bob worked for Sir Frank Whittle at Power Jets, Lutterworth from 1942-1950 when most of the work force there moved to N.G.T.E. He was a centre lathe turner using an American vertical boring machine working on many projects (prototype flying bedstead, Concorde etc.) Some of his work was of Geoff Timmins. Bob was extremely skilled and when he retired no one touched ‘his’ machine and it went to rust! Bob supervised many apprentices and for this work he was awarded the B.E.M.

T H PATTINSON

Brick No. 736 in Square 34



Joined Radio Department 1940 as Technical Assistant Grade II. Left RAE 1945 at the end of WW2, went to Saunders Roe IOW to work on Hovercraft. Very early on in 1940 worked in TR9

under Bill Williams. I think for a time he must have worked at North Court in Mr. Kemp's group.

Then worked with Vernon E. F. Price (ex BBC) on modifications to airborne radio equipment in RAF flying Fortress, based at RAF Holbrooke.

1943 worked under W. L. Horwood on Monica tale warning radar. (Visual display).

End of 1943 beginning 1944 went to Italy as RAE representative (RAF Uniform Officer Status No Rank) on airborne metric radar. Caught malaria serious ill in hospital.

Best man at my wedding 24th January 1944 Wellingborough, Northants Tom belonged to Brit. I.R.E. Came from Bradford area, father was a watchmaker.

Tom and I served in the RAE Home Guard Ron Smelt was also in the RAE Home Guard and in one exercise we operated in TR9 as an HF commitment.

Michael J PAYNE

Brick No. 191 in Square 31



RAE 1954 – 1959

Pocket History:-
After having served an RAE apprenticeship and the obligatory RAF National Service, I returned as a craftsman airframe fitter.

Resigning after a short while, to join the Air Ministry (at that time), serving for fourteen years within the Meteorological Research Flight Workshop. Utilising a Varsity, a Canberra and a Hercules aircraft based at Farnborough.

Transferring, (on further promotion), for the next twenty years to take charge of two experimental mechanical workshops close to and in Bracknell headquarters building.

Sergeant Major W PEARCE

Brick No. 334 in Square 38



My Grandfather worked with Cody and my Mother went up in a balloon with her father and Cody in 1909 or thereabouts.

Sgt. Major W. Pearce Joined RE 1889 Boer War DCM (Distinguished Conduct Medal) Balloons RFC RAF

E J PEDLINGHAM

Brick No. 631 in Square 19



My husband of 62 years had two great loves, family & aeroplanes. From 1941 to 1945 he worked at AST Exeter on repairing Spitfire Engines. Then did 1946 to 1948 Airforce 1954. We moved here to NGTE where he worked in many sections. 1974 to 1984 he worked on Jaguar engines flying between Toulouse / Heathrow until he retired.

On retirement he met G. J. Wedgwood at the RAE model flying club and spent hours building and flying gliders & they were great friends until he died as were the wives, who fetched & carried aeroplanes all over Butser & any hill that was suitable for gliding.

James PEEL

Brick No. 606 in Square 35



Following his father and eldest brother, James joined the RAE as an apprentice in 1957. After finishing his apprenticeship, James studied and taught at Farnborough Technical College before joining British Aerospace in Weybridge. He pursued a long and varied career in science and engineering in several public sector organisations.

Following a move into offshore oil exploration in the 1970s, the family moved to Scotland for several years. Before retiring, James was the Assistant Director of Research for the Petroleum Engineering Division at the Department of Energy in London.

Desmond PENROSE

Brick No. 144 in Square 15



The late 1950s were an exciting time for British aviation. Supersonic flight had revealed its mysteries and a supersonic airliner was being planned.

Farnborough, of course, was at the forefront of aerodynamic research with the wind tunnels at R.A.E. Bedford examining the various wing profiles, Delta and Ogee/Ogival, leading to the final shape for what became Concorde.

The variety of aircraft at Farnborough provided the pilots with a feast of opportunity: Hunter, Swift, Javelin, Scimitar, Sea Hawk, Sea Venom, Comet, Vulcan, Victor, Beverly, Shackleton, Lincoln,etc. It was a test pilot's dream. You could fly up to 13 types in a month.

The work was varied and interesting from the mundane Polar Diagrams to the tracking of the first Russian satellites, with Radar Suppression causing alarm at Heathrow one memorable night. Very Low Frequency navigation was perfected using a DH Comet whilst the workhorse HP Hastings helped develop Radio Counter Measures.

My four years at R.A.E. Farnborough were among the most interesting and enjoyable flying years of my life. I feel very privileged to have had that opportunity. “Good days”.

R J (Bob) PERRETT and P M (Pat) ARROWSMITH

Brick No. 935 in Square 7



Bob PERRETT, Student Apprentice, 1953 to 1958.
Pat)ARROWSMITH, Scientific Assistant, 1956 to 1960

Bob was a pupil at King Edwards School, Bath and Pat was a pupil at Grove Park Grammar School, Wrexham. They were unlikely ever to have met had it not been for the Royal Aircraft Establishment.

As a schoolboy, Bob had been an enthusiastic aeromodeller and member of the Bath & Wilts Model Aeroplane Club. His father was a naval architect at the Admiralty and had suggested that an apprenticeship at Farnborough might provide a suitable outlet for his interest in aeronautics. Pat had an interest in science at school and biology in particular. She followed up the advice of her school careers teacher that Farnborough could provide an interesting job opportunity. At the time, she had hoped for a posting to the Institute of Aviation Medicine but, at this crucial time, female SAs were not posted to that department. Instead, she was sent to Structures Department where she worked on materials testing. Pat and Bob met when the latter was sent to the Structures Machine Shop as part of his works training.

Bob graduated at London University in 1959 and they were married in 1960 at Bangor-on-Dee. In the early 1960s, the British aircraft industry was in disarray and contracting in size and Bob decided to seek a career in the new nuclear power business. After a short spell with Fairey Engineering in Heston, Middlesex, he joined English Electric at Whetstone, Leicestershire, eventually becoming Chief Engineer of GEC Reactor Equipment Limited. Thus he spent most of his working life at the site where Frank Whittle did his pioneering work on the jet engine. He has been a Member of the Institution of Mechanical Engineers for over fifty years.

Into his early forties, Bob took up cycling as a means of improving fitness and followed his eldest son into the competitive sport of cycle time trials. By the end of racing in his late seventies he had accumulated around 19,000 miles in competition.

They have three children and six grandchildren, two of the latter having already opted for a career in engineering.

Wg Cdr G L PERRY

Brick No. 1179 in Square 58



Lightning Memories – Graham Perry

In 1974 and 1975, the Operational Conversion Unit at RAF Coltishall and the Lightning Squadrons at RAF Wattisham and RAF Leuchars were disbanded, leaving just two Squadrons (5 and 11) and the Lightning Training Flight at RAF Binbrook as the sole operators of the aircraft for the next thirteen years. All the RAF Lightnings were gathered at Binbrook and a rotating programme of storage/servicing/flying for each aircraft was devised so that the airframe fatigue life of the fleet could be managed to last for the required time. Much re-allocation of aircraft was needed between the Squadrons and the Engineering Wing to achieve a workable plan, and it was a turbulent period.

For stored aircraft, the depth of storage varied between ‘not available until a major servicing has been carried out’ to ‘serviceable and squadron-ready in days if needed’. Those in the latter category had to be test-flown every six months.

The first aircraft from Engineering Wing storage due to be flown in this way was Lightning T5 XS420, the one on display at F.A.S.T. At the time I was the Senior Engineering Officer of No 11 Squadron and, with one of our pilots nominated to fly it, apparently what I wanted to do more than anything else in the world was to occupy the right-hand seat.

The air test went well at first, the aircraft reaching 40,000 feet in under 3 minutes and the engines behaving well when shut down (one at a time!) and re-lit at that altitude. Then a

check that both reheats and engine nozzle systems operated correctly, with all engine temperatures and pressures remaining within their permitted ranges. However, a hydraulic problem then asserted itself, so we made a precautionary return to Binbrook.

As this was the first such air test of a stored aircraft, a reception party and photographer were on hand to greet XS420 and this picture was taken at that time. Tea and medals followed shortly afterwards.

When I returned to RAF Binbrook in the early 1980s as the Engineering Wing boss, I was pleased to see XS420 on the Lightning Training Flight line every morning. The aircraft continued to give great service, helping to train the last group of RAF pilots who were lucky enough to have been chosen to fly the Lightning.

Wing Commander Graham Perry RAF
Senior Engineering Officer of No 11(F) Squadron, RAF Binbrook, 1974-1976
Officer Commanding Engineering Wing, RAF Binbrook, 1981-1983
28 November 2025



David and Elaine PETTITT

Brick No. 339 in Square 38



David Pettitt joined RAE in 1956 as a Drawing Office Apprentice.

Five years later and as a qualified Draughtsman worked in Technical Facilities Equipment Dept. and met my wife-to-be Elaine who was working in our Technical Facilities Civil Dept.

For further experience I moved to:- Structures Dept. involved with the Comet Enquiry and Aircraft Installation; then Radio Dept and worked on Sonar Buoys for submarine detection. I then moved back into Technical Facilities Equipment Dept. involved with Airfield Engineering and Maintenance of Services, and setting up facilities for the Annual Farnborough Air Show.

Promoted to Buildings and Lands Accommodation Officer involving Estate Management and allocation of offices to RAE personnel. Retired in 1993

Elaine Pettitt joined RAE in 1960 as a Trainee Tracer

Trained under Leading Tracer Miss Gadsby for 6 months. Qualified and started work in Reports Dept preparing Scientific Drawings for publication on such projects as Concorde and TSR-2 testing.

Promoted to Drawing Office Assistant in 1962 and moved to Technical Facilities Civil Dept. (where I met my husband-to-be David). Work here involved producing maps and building plans of the RAE and its Outstations.

Left to have our family 1968 and returned to RAE 1983 to 1988 as a Drawing Office Assistant and was privileged to be involved with trials of Computer Aided Design software, a new innovation for drawing office procedures.

Tony and Liz PIKE

Brick No. 419 in Square 29



Tony and Liz are the son and daughter of Dot and ex-apprentice Graham Pike (1960 intake). The pair are mindful that they owe their very being to Concorde

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Vera PIKE

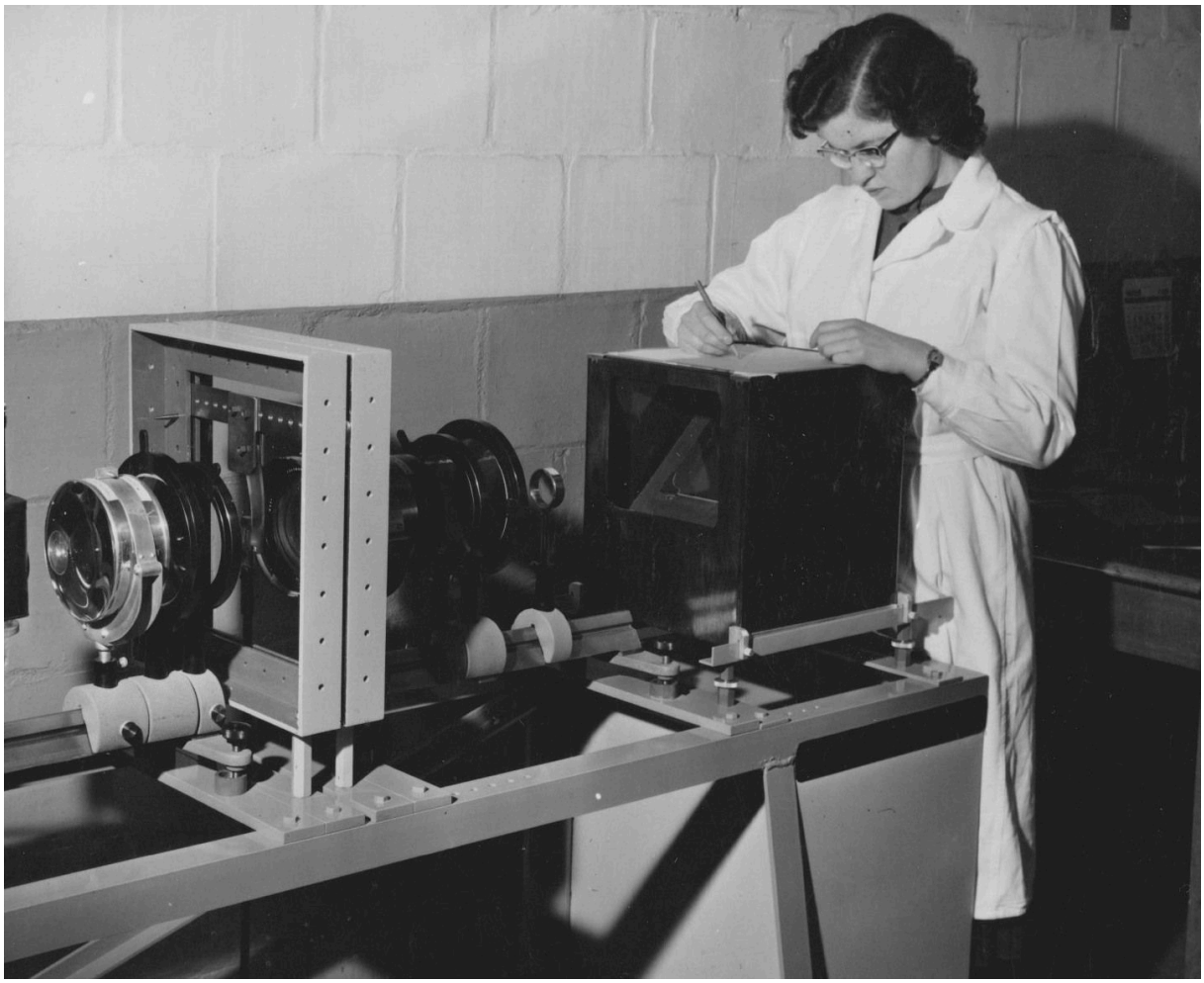
Brick No. 938 in Square 8



Vera Pike worked as a scientist in the Structures Department of the RAE from 1962 to 1995. Vera's academic achievements throughout her life were exceptional, especially in her early life when there was much less equal opportunities. Fortunately the RAE realized her potential and she started work analyzing fatigue data from RAF squadrons and in 1973 helped develop early crack growth programmes using Fortran. Like all those involved with MOD projects, Vera would never speak about her work and was very surprised to find out shortly before she died, at the age of 81, that some of her published papers were now freely available on the internet. Vera came across outside of work as someone who quietly got on with things and never let on that in the RAE she was handling important presentations and was highly praised by Division Heads. Vera was encouraged to join the RAE by Bob Turner who worked as a mathematician in the Radio Department. They became lifelong friends and he and Vera traveled together all over the world making the most of their leave allowances. Vera was very active in the RAE

Technical Society and also kept a keen eye on Union matters. Outside of work, Vera had a host of active roles in clubs, including WEA and U3A and remained a valued Director of Briarleas Court right up until her death in 2014. Vera's Christian faith was a very important part of her life and she was regarded not only as a very talented lady, but as someone who used those talents to the full.

Writen by John Williams



Frances PORTER (nee EVANS) AMRAES

Brick No. 476 in Square 37



As Frances Evans I joined the RAF Institute of Aviation Medicine as a Scientific Assistant in August 1960 from Aldershot County High School for Girls. My A' Level Maths took me into the Statistics department under Miss Helen Ferres and Sammy Samuels. We analysed the data collected from the very various experiments conducted at the Institute. This was carried out via Marchant Desk Top Machine plus use of RAE mainframe Computer (booked for 3-5 minutes at a time) using paper tapes produced on teleprinters. I worked along side Ann Twidale, we were sent to Farnborough Technical College part-time (one day plus one evening release) to take further A' Levels: Statistics: Technical Maths: Computations.

I was married in 1963, promoted to Experimental Officer and left the Institute in September 1964 to work in the Bahamas with my husband.

My association with the Institute was resumed in 1984 when I moved back to Aldershot following years spent in Bahamas and Devon. I was employed by Roger Green, Head of Psychology to work on the CHIRP Project (Confidential Human factors Incident Reporting Program) which had been recently set up. A confidential scheme for Airline Pilots, and latterly Air Traffic Controllers and Licensed Aircraft Engineers, allowing them to report in confidence any safety related incidents/occurrences concerning all aspects of flight operations, cockpit ergonomics/procedures, all human factors including shift patterns/tiredness, instrument display anomalies etc. etc. To facilitate the distribution/sharing of this often vital knowledge the magazine FEEDBACK was distributed three times per annum.

I finally retired in 2002 - my career in aviation, although split in two, could not have been spent in more exciting times or areas, or with more interesting colleagues. Personally it could not have been more rewarding.

Frank POSTLETHWAITE PhD MSc

Brick No. 903 in Square 1



Frank Postlethwaite was born on 5th August 1904 at Barrow-in-Furness. He was the son of a foreman painter, and a school teacher.

He was apprenticed at Vickers-Armstrong shipyard, as a fitter and turner, and by studying in the evenings he gained his matriculation. He also won The Vickers Scholarship to Liverpool University.

He had a distinguished academic career, graduating in 1928 with 1st class honours degree in Mechanical Engineering. He won the Stitt Gold Medal for the best work in heat engines, and he won the Watkinson Prize in mechanical engineering.

He became a research engineer at Imperial Chemical Industries at Billingham-on-Tees, and was a part-time teacher at Middlesborough Technical College.

After working for periods industry he moved to Birmingham University where, in 1934, he wrote a thesis on the measurement of detonation and knock in internal combustion engine, which proved of great value in the aircraft industry in determining the minimum weight of metal needed for aero engines; he also worked out a method of using an oscillograph to measure heartbeats which was circulated in the medical profession. For this work he was awarded his doctorate.

He was unusually gifted with a penetrating and logical mind, quickly going to the heart of each problem he tackled. His inventions and contributions were many and various, including notable work on the measurement of fuel flow, detonation, and vibration.

Basically a mechanical engineer he was also well versed in electrical theory, and was perhaps best known for his work on the application of electronics to the measurement of physical quantities.

He came to the Royal Aircraft Establishment in September 1936 as a Scientific Officer; he was promoted Senior Scientific Officer in1939 and in 1945 was promoted Principal Scientific Officer, and Deputy Head of Instrumentation Department.

He carried out a great deal of research work, and had published many scientific articles. One, in particular, dealt conclusively with the controversy over British and American bomb-sights during the war.

Sadly, in 1941 he contracted colitis which he miraculously survived, but thereafter was dogged by painful ill-health, against which he struggled with great courage and devotion to duty.

His hobbies included painting and photography.

He died on 25th August 1951, in St. Thomas' Hospital, London, aged 47.

Charlie POULTER

Brick No. 309 in Square 30



C. W. J. Poulter, known to all in the Establishment as ‘Charlie’, joined RAE from the then Farnham Electricity company in April 1942. He was employed as an Electrical Fitter in HLP (Heat, Light and Power) Department. He was immediately seconded to S&ME (Structural & Mechanical Engineering), based in 153 Bldg. This was to be his ‘home’ for the next 22 years until his retirement in September 1965.

During the war years he was often on ‘outside duty’ in support of testing assignments. This involved work on the Lancaster at AVRO Manchester, on Short Sunderland flying boats at Helensburgh in Scotland and on the Short Shetland flying boat at Felixstowe. These tests, apparently, involved extensive strain-gauging of the airframes and especially the hulls of the flying boats. He recounted that this was somewhat detrimental to the Shetland flying boat on one occasion as, overnight, it had ‘settled’ somewhat lower in the water.
Despite his ‘industrial’ status (from which he never managed to progress), he became an integral part of the ‘test team’ engaged on the structural testing of all new Airframes, emanating from the multitude of UK aircraft manufacturers at that time, for which RAE was the test authority, having the appropriate facilities in the shape of the ‘Cathedral’ and ‘Abbey’ test frames. Even the Cathedral was not large enough to accommodate the full-size Brabazon and this necessitated the provision of a ‘half-scale’ wing by Bristol’s.

He was also heavily involved in support of the fatigue testing of the De H Comet airframe in the Water Tank facility, part of the investigation into the crashes involving that aircraft.

He was a respected member of Structures Dept. until his enforced retirement, aged 65.

Written by his Son, Dennis E G Poulter CEng. FIMechE (Ex_Apprentice 1945 Intake

Frederick POWERS

Brick No. 135 in Square 15



Aldershot born Frederick Powers spent most of his working life at the National Gas Turbine Establishment, Pyestock. Following war-time service in the RAF where he worked on Liberator Mark II bombers in India and Burma, he took the first job he was offered on demobilization.

This was at the NGTE in 1947 after the Government of the day had given the go-ahead for development of the site at Pyestock. He was sent to the Stores Department which was built up a rapid rate to cope with the demands of research into jet engines.

The job he took as a temporary measure proved to be one of lasting interest and satisfaction. He saw it grow from small beginnings to the vital role it played in British aviation. He was proud to be associated with the recovery of the RB 162 Whittle engine, when it was transported from Sir. Frank's home in the West Country.

Thirty-seven years after signing on for a temporary job, he retired as Stores Supervisor.

Mike PRICE

Brick No. 367 in Square 5



Rad Nav 1984/5

The Radio Navigation Department was the start of my career and a source of many happy memories: JTIDS flight trials in the BAC 1-11 out of RAF Anglesey (in the days when walking about on the 'plane during take-off was normal), sweating in the yellow trials truck with temperamental radio equipment, antenna radiation pattern measurements at Lasham, cups of tea with Peggy and the rest of the department twice a day, and watching through my office air vent window the Vulcan bomber taking off.

Happy days, irreplaceable and unrepeatable. Thanks RAE (Farnborough).

Peter RANDALL

Brick No. 1047 in Square 53





Peter at work in the optics lab (photo taken for publicity purposes). Equipment is for measuring the brightness and NVG-compatibility of cockpit displays. (1991)

I decided to buy a brick to mark my 50th birthday but did not write my brick story at the time. After finally retiring in 2025, having worked at Farnborough for my entire career, it seemed an appropriate time to record my story.

I joined the Royal Aircraft Establishment in 1987, joining the Electro-Optics section within the Combat Mission Systems division, led by Maurice Gates, in Y20 building. I was recruited primarily to assist Gordon Lloyd, who was the recognised expert on night vision goggles (NVG). My principal role was to make various measurements in the optics lab, particularly to assess the compatibility of cockpit lighting systems with NVGs. I worked on the Tornado Mid-Life Update, which involved integrating the SR(A)1010 FLIR and SR(A)1011 NVGs to provide a full night-time combat capability. I also assisted on many trials, in West Freugh and other places. These included co-operative designation trials using the Thermal Imaging Airborne Laser Designator (TIALD) pod, fitted to Buccaneer XV344 (now on display within Cody Technology Park). While trials were underway, the RAF demanded that the two experimental TIALD pods be rushed into service for the 1991 Gulf War and they played a significant part in the precision bombing campaign.

During the 1990s, I project-managed several technology demonstrators, including Firstsight (the UK's first airborne infra-red search & track system), a Steerable FLIR (used in conjunction with a helmet-mounted display to give the pilot the ability to look all-around with infra-red imagery), and several pod-mounted sensors. All of these flew on TIARA (Tornado Integrated Avionics Research Aircraft) ZD902 which replaced Buccaneer XV344 as the fast jet avionics testbed. By this time, RAE had become DRA, and then DERA, which came with new ways of accounting. The real cost of owning and operating a fast jet was becoming apparent and ultimately led to a move away from practical trials towards simulation.

In the mid 1990s, we moved to the new DRA headquarter buildings (specifically A5). I became first a Technical Leader and then Capability Group Leader for the team, which carried out research into novel electro-optical systems and the associated data processing algorithms. The goal was to improve the ability to detect and identify targets, such as military vehicles, including those employing camouflage and concealment in rural and urban scenarios. My group developed and evaluated new sensor technologies, such as hyperspectral imaging and 2D and 3D laser imaging. Meanwhile, a sub-section of the team was developing algorithms to automatically detect and identify targets in the imagery. There were ambitious plans to incorporate these technologies into a successor to the TIALD pod, and a demonstrator (JOANNA) was flown on BAC 1-11 ZE433. Despite the success of the technology, the MoD decided to buy an off-the-shelf targeting pod to equip Typhoons, largely because it was already in use by partner nations.

During this period, I took on the role of Subject Matter Expert for electro-optic systems, advising MoD on the procurement of many new air platforms including Typhoon, Joint Strike Fighter (F-35), WAH-64 Apache, Nimrod MRA4 and Future Offensive Air System. I also represented the UK on a number of international scientific collaboration panels, including TTCP and NATO. I was lucky enough to travel to many interesting places around the world, which remains one of the highlights for me.

Following privatisation in 2001, I remained in QinetiQ, but in the following years it struggled amidst increasing competition and reducing research funding. As a result, there were several rounds of redundancy and major shake-ups of the organisational structure. In 2010, my role (along with many others) disappeared and I was at risk of redundancy. I decided to move into Space Dept, which seemed to be thriving in its own niche areas.

Thus I became a Systems Engineer for space propulsion, working primarily on ESA's BepiColombo mission to Mercury, for which QinetiQ had won the contract to supply the electrically-powered ion thruster system. I reported to the Chief Engineer, Neil Wallace, working in Y72. The technology had been developed at RAE for over four decades. It was an enormous challenge to develop the prototype into a fully qualified product, which resulted in a large budget and schedule over-run. The flight equipment was finally delivered and launched in October 2018. That was truly a highlight of my career, with most of the team going in to work at 2am on a Saturday morning to view the live launch broadcast from French Guyana. As I write this, Bepi is still on its way to Mercury, having completed 6 years of its 8-year journey.

Unfortunately Space Dept was unable to capitalise on the technology and turn it into a viable commercial product and in 2020 QinetiQ decided to exit the space propulsion business and sell the intellectual property, facilities and equipment to another company, who also took on many ex-QinetiQ staff. I decided to stay on at QinetiQ to manage the transfer which completed in 2025, and then retire.

My final project was to supply an experiment to the International Space Station. Known as T-PAOLA, this was to demonstrate in zero gravity a method of manipulating particles

suspended in fluid using vibration and thermal inputs. The equipment was launched to the ISS in November 2022 and successfully achieved all its objectives.

Thus my career of nearly 38 years came to an end, but not my association with the site as I am actively involved with Cody Astronomical Society, which continues to operate the observatory on Ball Hill.

Peter Randall
31 January 2025



Peter (4th left) with the DRA team at Long Jump 94 trial in California. The Flight Systems team deployed Firstsight and Farsight, while a Weapons Systems team had other EO sensors, all at an altitude of 15,000 ft while the US flew a range of aircraft at us. (1994)



Photo – TIARA, showing IRST and twin pod installation.
From a set taken Oct 1996 by P J Cooper



Peter (3rd right) with the DERA team at trial MUST2000 in Queensland, Australia. Leopard tank provided by Australian Army (2000)



Peter (far right) as project manager for the Dragonfly installation and trials on Andover XS646, together with the MoD customer, Aircraft Dept team and trials team (2002)



Peter (9th from left) with BepiColombo project team at shipment of flight T6 thrusters (model in foreground). (2015)

Ivor & Alma REYNOLDS

Brick No. 587 in Square 4



1948-87

During the time of his National service in an educational corps of the army, Ivor, a mathematics graduate of Cambridge University, was recruited to RAE to a scientific post in Guided Weapons Department. One of his staff was Alma Cooper, daughter of George Cooper (who is the subject of another Cody brick). They both lived in the Grange Hostel, started courting and were married. Alma resigned to start their family. Ivor remained in his Department for his entire career. He was an ardent supporter of the RAE Cricket Club and for much of his life was a valued member of the team itself.

Eric RIPLEY

Brick No. 200 in Square 39



My father, Eric Ripley, joined the RAE in 1948 with a Diploma in Aeronautical Engineering from Imperial and wartime experience with Miles Aircraft. In his early years, he worked on accident investigation, most notably as a key part of the Comet disaster team; for which he was awarded the OBE. His work on "fatigue" continued, mainly in Structures Dept, where as Deputy Head he led the testing of Concorde. In 1976, he was received the Sir James Baker Award, given to an individual, a group, team or organisation, which has made an outstanding, original and practical contribution leading to the safer operation of aircraft or the survival of aircrew or passengers.

Brian RICHARDSON

Brick No. 388 in Square 13



I came to RAE straight from school in February 1949 having just passed the Civil Service open competition for Assistant Experimental Officers. I was interviewed by Mr Morien Morgan (later Sir Morien Morgan) who was then Head of Guided Weapons Department together with Mr Norman Coles, Head of Trials Division.

I first worked at the Bramshot outstation on telemetry equipment and regularly travelled to Larkhill for the launching of a variety of rocket propelled test vehicles. After a two year interlude for National Service I transferred to Radio Department and spent the next 17 years at the outstation at Ambarrow Court mainly in the Radio Warfare Division working on radar countermeasures. It was at Ambarrow Court that I met my late wife Shirley (neé Brown).

When Ambarrow Court closed In January 1969 the Division moved to Jersey Brow where I spent the next 17 years, latterly working on the Skyshadow ECM pod for Tornado. I spent my final working years in St Giles Court, London working on the upgrade project for Skyshadow.

I am proud to have played a small part in the history of the RAE and am saddened by the policy of eliminating evidence of its existence to the extent that its name on the RAE Gardening Club shop became "....A. Gardening Club"

Jack RICHARDSON

Brick No. 41 in Square 24



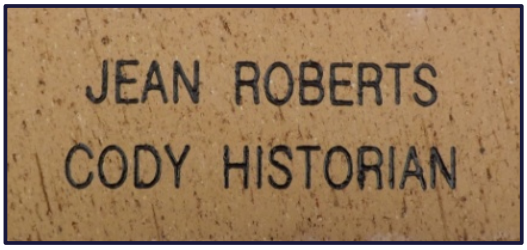
Ripley 1920-2010

Jack Richardson was Graham Pike's stepfather. Graham's mother was a war widow who remarried in 1950. As a teenager Jack attended air shows at Hendon and Brooklands and helped foster Graham's interest in aircraft by bringing the family to the SBAC Show regularly during the fifties. Without the encouragement and support of his stepfather, Graham is ever mindful that he would not have got the wonderful start his RAE apprenticeship gave him

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Jean ROBERTS

Brick No. 168 in Square 23



When we first moved into our present home "Pinehurst" in Mytchett, we were told a previous occupant had been Samuel Cody. After a couple of false starts researching Buffalo Bill and, I am ashamed to say, Wild Bill Hickok I discovered the true identity of our house's past occupant. He was Samuel Franklin Cody, showman, kite developer and aviator. He was a man of greatly diverse talents and for me a subject of abiding fascination.

When I first began researching Cody I naturally read all that I could about him. Books, magazines and newspaper articles all told of his birth in 1861 or 1862 in Birdville, Texas and

of his very colourful early life spent on his father's farm. This happy childhood, spent horse riding, lassoing, playing with kites etc. had come to an unhappy end when his family home was attacked by Indians and most of his family had been killed. Luckily Cody had been away from home at the time. There followed a life of excitement herding cattle, gold prospecting, taming horses ….. you name it and Cody had most certainly done it.

Colourful as these stories were they contained many inconsistencies. In addition it had always seemed a great coincidence that S.F. Cody had the same surname and appearance as Buffalo Bill – W.F. Cody. Many years of research followed (this was before I had found the internet) and gradually his correct surname (Cowdery), place of birth (Davenport, Iowa), date of birth (1867) plus many more details were all uncovered and confirmed. (See Jean's web site www.sfcody.og.uk)

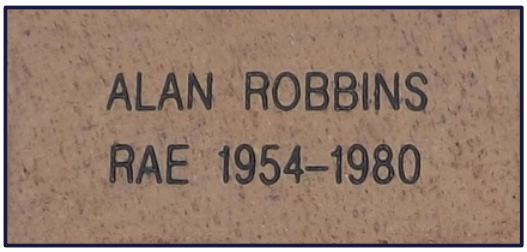
Cody was a very difficult person to research as the majority of the accepted facts of his early life proved to be incorrect and therefore misleading. Nevertheless the character that emerged was of a kind, generous man, indomitable and courageous with a showman's flair that never left him.

The cause of his fatal crash on August 7th 1913 will now never be unearthed but what can be said with certainty is that with the death of Samuel Franklin Cody the world of aviation lost one of its most colourful pioneers.

Today there is still a great interest in Cody, particularly amongst kite flyers who appreciate the excellent design of his man-lifting kites. The world of aviation is, I think, less appreciative, suggesting perhaps that had he lived longer he would have been left behind by mass produced aeroplanes. I like to think Cody would have reinvented himself, looked to see which way the world was going and remained one step ahead.

Alan ROBBINS

Brick No. 438 in Square 36



RAE 1954 – 1980

As a family, we lived in Farnborough for over 30 years in Clockhouse Road, my brother Tim, myself and our parents. My father, Alan Robbins worked at the Royal Aircraft Establishment, as am Electrical Engineer in 1954 staring out as an Experimental Officer, and working through the ranks up to Senior Scientific Officer when he retired in 1980.

During his time there he was involved with a number of high tech projects most notably research into effects of magnetic fields on Electronics in space and the electrical design of the

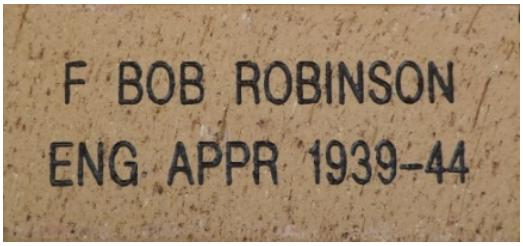
Skynet communications satellite. His final project was as a Senior Scientific Officer where he was accountable to manage the interface between the European Space Lab project and the US Space Shuttle which was used to deliver the Space Lab to Earth's orbit back to earth. This involved many trips to the States to work with colleagues in NASA and also Toulouse in France with the European Space Agency.

My father moved to Guernsey in the Channel Islands in 1989 with our mother, Marjorie as she was originally a Guernsey girl who had endured five years under the German Occupation during the Second World War, staying there to look after her parents, whilst her three brothers went off to war, only leaving to start a new life in England in 1947.

My brother and I would very much like to donate a brick with our father's name on it and the dates when he worked at the RAE to be used to help support the base of your Statue.

F 'Bob' ROBINSON

Brick No. 670 in Square 11



P 'Pip' ROBINSON

Brick No. 609 in Square 11



Harry, George, Bob and Pip Robinson were four brothers who were apprentices at the RAE between 1924 1945.

Harry went to Bristol and I believe he was a design draughtsman who worked on Concorde.

George also become a design draughtsman and worked on the VC10 and Concorde.
Bob and Peter (Pip) were both in the patents dept. each with time spent in Washington.

George's son Colin M. Robinson also served his apprenticeship in the RAE and went to work for Boeing in Seattle in 1966.

Peter T ROE

Brick No. 1071 in Square 54



Born 11th Feb 1920 in Dunstable, Bedford. Married to Joan and had two daughters Ann and Lynne.



Moved from Dunstable to Farnborough with the RAF and then continued working with the RAE where he worked for 38 years from 1942 to 1980 as an electrical aircraft fitter. Like many having signed the official secrets act we do not have many details of the work he undertook.

An extract from his Retirement letter said, "Throughout your service in Aircraft Department you were responsible for installation work and first and second line servicing on a wide variety of aircraft ranging from the wartime Flying Fortresses to the 'V' Bombers as well as being involved in major installation work including the conversion of Hastings Aircraft to Flying Laboratories."

The brick is from his granddaughters Leola, Paula and Kirsty in recognition of his work at the RAE.



Photos showing Peter Roe in his uniform, and with RAE colleages

Dr Graham ROOD

Brick No. 428 in Square 29



My interest in aviation must have started at an early age and by the time of joining senior school it was well established. In 1956, at the age of 16, it was suggested that I apply for a Government Apprenticeship at the RAE Farnborough and, after taking the entry exams and surviving the interview, I duly started a Student Apprenticeship in September 1957. I was accommodated in the Apprentices Hostel, by the Queens Roundabout, little realising the long history of the place as the early Royal Flying Corps barracks, then the School of Aerial Photography and the quality of the previous inhabitants, including T. E. Lawrence (of Arabia fame).

Looking back at those five years, it is now clear that the Apprenticeship was probably the best in the world where aviation was concerned and the ability to work with, and learn from, the wide range of technically skilled and academically brilliant people who were second to none. Perhaps I should have worked harder and paid more attention, but the skill of the apprentice masters, the scientists and engineers in the RAE Departments and the Apprentice Supervisor 'Digger' Armstrong (and his staff) ensured that something must have rubbed off.

The 5-year Apprenticeship being completed, I spent some time widening my knowledge at AID Hatfield and Industry, SRDE at Christchurch and then AAEE Boscombe Down. At AAEE I applied to Southampton University to attend, part time, a one year Masters Degree and, working at the newly formed Institute of Sound and Vibration Research (ISVR) I successfully completed the degree. Like RAE Farnborough, the ISVR was populated with world quality acoustic scientists, engineers and research staff and again the chance to learn from them all was fortuitous.

Having completed the M.Sc. there was a chance of staying on to study for a full time Doctorate. Rather than leave the Ministry of Aviation, I managed, with much effort, to persuade the upper echelons of the Ministry to undertake some research which was being set and monitored by Farnborough (by 'Chew' Warren and Dai Webb) on the effects of sonic boom on people and structures. This was, of course, at the time when Concorde was under construction and the effects of the shock waves reaching the ground were not fully understood. This research was part of a larger programme to try and enhance the understanding. Working with the proverbial 'string and sealing wax' facilities of PhD students in that era (well learned from the Farnborough time) and working with the ISVR Wolfson Unit on the West Coast of Scotland in Oban on structural response to the boom during the Concord West Coast supersonic proving runs, the Doctorate was suitably completed.

I then returned to Farnborough working for Bob Thorne, Geoff Allen and Kate Maslen in the RAE Human Engineering Department – as a part of the Acoustics Section. This was a time of the Buccaneer flying at high speed and low level which resulted in high noise levels in the cockpit, enough to interfere significantly with communication and raise the risk of hearing damage to aircrew. An Air Staff target was raised to provide solutions and much research, including writing specifications for AvP970 – the aircraft design manual – was undertaken. Flight trials for data gathering and of potential solutions were undertaken both from experimental aircraft at Farnborough and from RAF Operational sorties, and a wide range of novel measuring equipment had to be developed. Sometime later a research programme was started on cancelling the noise at the pilots' ear by the use of active acoustic interference waves – called Active Noise Reduction (ANR). Over the years the improving active technologies and the development by RAE and IAM of the acoustic properties of the new Mk4 flying helmet resulted in significant reduction in noise levels at the ear, improvements in communications and significant reductions in hearing damage risk. The work still continues today with better and more flexible systems as technology and digital computing techniques develop – a significant world beating technology pioneered by Farnborough and the Air Ministry.

I then took up the SPSO post of Superintendent of the Man-Machine Integration (MMI) Department which was involved in a wide range of cockpit systems technology and human factors research, now being used in fast jets and helicopters. This later evolved into the Research Manager and Assistant Director for Man-Machine Integration (MMI) issues across the DERA structure. This involved collaborative research programmes with Europe, the Commonwealth and the USA, working with NATO and AGARD.

After retirement in 2000 I continued as a consultant to QinetiQ for a few years before bowing out and spending my time ensuring that the technical and scientific heritage of the 100 years of the Royal Aircraft Establishment is not forgotten and lost, as a Trustee and volunteer of the FAST organisation.

ROTARY CLUB OF FARNBOROUGH

Brick No. 460 in Square 37



The Rotary Club of Farnborough is part of the world-wide Rotary organisation whose motto is 'Service above self.'

The club was formed in 1959, has 50 members, meets weekly on a Thursday lunch-time. We are a real mixture of people and personalities representing different professions, occupations and local businesses, all of whom wish to give something back to the community.

The club is very active throughout the year, both socially and with fund-raising events such as the Christmas float/street collection, annual Donkey Derby, and the biennial Picnic to Music in

the Park which raises money for Phyllis Tuckwell Hospice. Many local charities are supported and also individual grants made to worthy causes.

As the Rotary Club of Farnborough we are pleased to support, in a small way, the Cody Statue project to commemorate the aviation pioneer who made Farnborough the 'Birthplace of British Aviation'.

More details go to www.farnboroughrotary.co.uk

The ROYAL SOCIETY OF ST GEORGE

Brick No. 1041 in Square 52



The Royal Society of St. George is the premier patriotic society of England and was founded in 1894 with the noble object of promoting "Englishness" and the English way of life. In 1963 Her Majesty Queen Elizabeth II bestowed a notable honour by granting the Society its own Royal Charter, a distinction of which its members are justifiably proud; being further granted Arms in 1990. We are a non-political, non-racist, non-sectarian group of people who believe in England and all its richness and tradition.

The objectives of The Society as laid down in its Royal Charter are:

1. To foster the love of England and to strengthen England and the Commonwealth by spreading the knowledge of English history, traditions and ideals.

2. To keep fresh the memory of those in all walks of life who have served England or the Commonwealth in the past, to inspire leadership in the future.

3. To combat all activities likely to undermine the strength of England or the Commonwealth.

4. To further English interest everywhere to ensure that St. George's Day is properly celebrated and to provide focal points all the world over where English men and women may gather together.

To date the Society is supported by fifty established English branches and forty overseas branches. The Rushmoor Branch (being one of the local branches to Farnborough) meets approximately once a month at places of local or national interest; joins others for evenings of skittles and games; holds quizzes and dinners for important occasions in the English calendar, such as St. George's Day and Trafalgar Day. Nationally, the Society holds events from time to time, usually based in London.

One of Rushmoor Branch's local visits took us to the FAST museum in February 2016 - photo below followed by an extract from the our newsletter following our visit....



We none of us had fully realised the wealth of information held there and the enormous task the entirely voluntary organisers have undertaken to preserve the nation's aviation history and many vital priceless documents and avionic artefacts, nor how widely the Trust's work is acknowledged throughout the country as a valuable resource. The volunteers were very welcoming and informative and began our visit with an introductory talk in the Cody Pavilion in front of a volunteer-built, life sized replica of the British Army aeroplane in which Samuel Cody made the first recognised flight in the UK in 1908. As we heard from the audio effects, the Pavilion we were in is situated on the very flight path! Our members were so impressed with the sheer diversity of what the museum had to offer and were given a good understanding of what had been achieved so far to protect key historic buildings and to conserve historic documents and artefacts; recording a century of continuous aviation research, development and national defence. What they have been able to preserve and present in this museum is so amazing that some of us are going back as there wasn't enough time on the day to take it all in!

Full membership of The Royal Society of St. George is open to anyone who upholds the aims and objectives of the Society, on payment of an annual membership fee. We at the Rushmoor

branch are always pleased to welcome visitors and guests to all our events so do get in touch if you feel you might like to come along.

Contact details:
- Chairman – Lt. Col. Leslie Clarke (ret'd) 01483 810492 leslie.larkfield@btinternet.com
- Secretary - Beryl Mullender 01256 321596 beryl@mullender.org

For more information on the Royal Society of St. George and for the list of its branches, please visit the web site: www.royalsocietyofstgeorge.com

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William Ernest RUFF

Brick No. 834 in Square 25



William Ernest Ruff, Bill to all who knew him, moved to Farnborough with his wife Win and daughters Olive, Eleanor and Jennifer in 1955. He was born in 1912 in Southwick in Sussex. He joined the army in 1929 and became familiar with the Farnborough area when he was stationed in North Camp in Blenheim Barracks in 1930. He was then posted to India where he remained until 1937.

He married Win and continued in civilian employment learning many skills often operating and maintaining machinery until the outbreak of war when he was re enlisted and fought in Dunkirk, North Africa, Italy and Greece.

After the war he returned to civilian life and continued to learn new skills including operating a steam crane. His wife suffered severe asthma attacks and at the time it was believed that living in an area where there were many pine trees would help improve her health. He remembered the area around Farnborough especially the Fox Hills and had a good friend, Frank Bishton, from his army days who lived in Ash Vale and worked in the RAE and a fresh start began. Bill successfully applied for work at the RAE and commenced on the 25th January 1955 at a commencing wage of £6 8s 10d + 6s per week of 44 hours in 45 Department. His offer of employment letter describes his position as Mate but unfortunately the family have no details of the work he did except that he mentioned in a diary of the operation of Butterley Machines and his work involved the famous wind tunnels.

He remained at the RAE until 1961 when he took up the post of caretaker at South Farnborough School, Queens Road, until 1972. He once again made the decision to move for his wife's health, this time to Eastbourne hoping that returning to an area by the sea would help. Bill died in 1989, at the age of 77, having retired back to his roots near Southwick in 1977 where he enjoyed 12 happy years. His wife died 4 years later aged 80. This brick is bought in memory of a wonderful, loved and very much missed Dad and Grandad.

Leslie A RUSH

Brick No. 424 in Square 29



Les was a hard working family man who, along with his wife, Maureen, had three children - Sue, Terry and Sandy, seven grandchildren and four great grand children. He loved his sport, a Farnborough Town FC follower, played golf at Southwood and liked the odd darts match. A Dad that loved and put his family first, made us laugh and always had a smile for all of us.

Jim RUSSELL Bsc PhD FCIPA

Brick No. 436 in Square 29

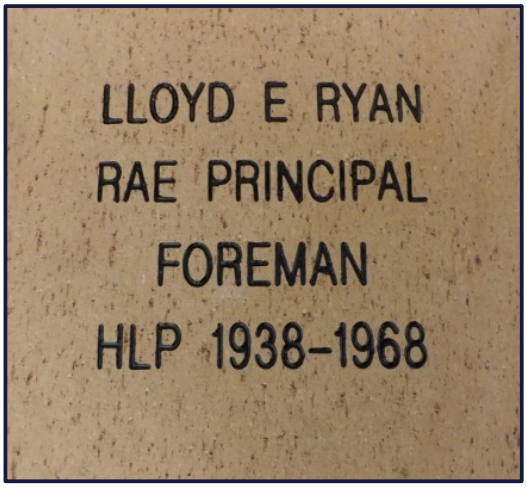


Jim Russell's first contact with the Royal Aircraft Establishment was around Easter 1961 when he had a job interview in its Chemistry Department, which he declined having become thoroughly disillusioned with chemical research working for his PhD. Instead he joined the Patents Branch of the then Ministry of Aviation and quickly found himself being sent on 'outside duty' to supplement the resident RAE patent staff dealing with inventions arising in the Chemistry Department. Eventually he joined RAE as the Materials Senior Patent Officer, a post he held for 11 years from 1967 to 1978. During this time he dealt mainly with inventions in the materials field; carbon fibres, aluminium alloys, heat resistant materials such as adhesives, polymers hydraulic fluids and the like. In 1971 he qualified as a Patent Agent and entered the statutory register of individuals admitted to practise before the Patent Office on which he remained till retirement in 1995.

Jim left Farnborough in 1978 on promotion and after a tour of duty seconded to British Defence Staffs, Washington as Defence Equipment Attaché (Intellectual Property Rights) followed by a period as MOD's Patents Licensing Manager he returned to RAE to head the Patents Section there in 1990. When the Defence Research Agency came into existence in 1991, he became Deputy to the Manager, Intellectual Property Rights. Shortly thereafter he became aware of, and joined, Farnborough Air Sciences Trust (FAST), which awakened his interest in the wider history of the RAE. He has given a talk, The Royal Aircraft Establishment, Past Present and Future, illustrated by slides in support of FAST.

Lloyd Ernest RYAN

Brick No. 86 in Square 32



May 14th 1908 -January 10th 1993

Principal Foreman HLP (Heat, Light & Power Department)

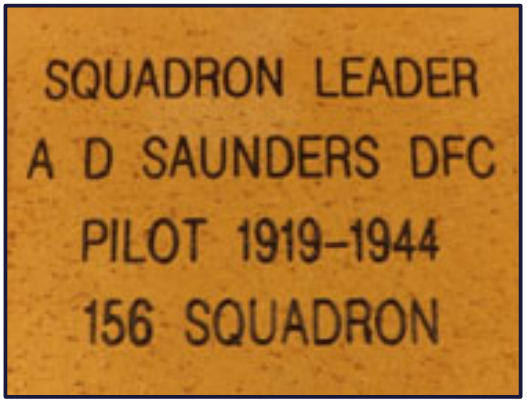
Lloyd Ernest Ryan was born in Brantford, Ontario, Canada. He was a small baby so his mother nicknamed him `Tiny' which was the name used throughout his life even though he grew to 6' 4" in height. When he was a small boy the family returned back to England, and settled in Leatherhead. From there they moved to Farnborough where he was educated at the Salesian College. When he left school he was apprenticed to an electrical contractor in Farnborough, and he was part of the team that converted the ‘Glasshouse’ (the Aldershot Army Prison), from gas lighting to electricity.

During the 1930s he helped set up, and operate the stage lighting for the Aldershot Command Searchlight Tattoo. An annual event held in June during Ascot week at the Rushmoor Arena, it was attended by 500,000 people annually. The Military Tattoo was a spectacular outdoor theatrical show with massed Army bands where past British military victories were acted out.

In 1938 he applied for, and was offered an electrician position at the RAE. When the High Speed Wind Tunnel was built in 1941, he joined the Wind Tunnel Electrical Maintenance Department, eventually becoming the Charge Hand. During the war he joined the NFS (National Fire Service), a part-time fire brigade volunteer group, and he spent many nights away from home fighting fires as far south as Portsmouth. After the war he was promoted to Foreman in HLP (Heat, Light and Power Department). Research in many fields was going on at the RAE as the British aircraft manufacturers had new aircraft on the drawing boards which required research support. He was involved in some of these projects, including supporting the aircraft pressure fatigue testing facilities for the de Havilland Comet and Bristol Britannia. He was also involved in helping support the new RAE Bedford site, which was built in 1946. The RAE used a de Havilland Dove aircraft to ferry personnel back and forth to this facility. Later in HLP Department he was promoted to Principal Foreman. He retired in 1968 after thirty years of dedicated service. “Tiny” Ryan was married, and had three children, two of them followed in his footsteps, working at the RAE early in their careers.

Squadron Leader Anthony D SAUNDERS DFC

Brick No. 102 in Square 7

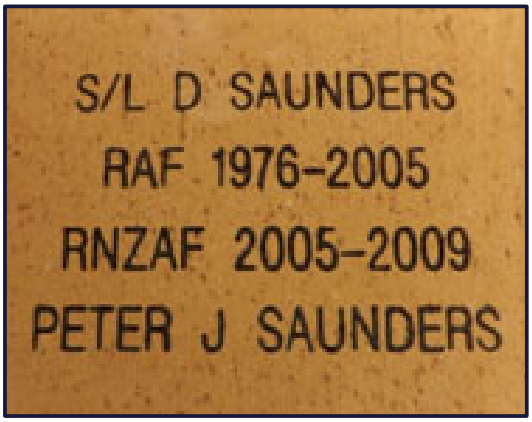


Sqn. Leader Anthony D. Saunders DFC as a young man was keen on aeroplanes and learnt to fly with the University Air Squadrons among many others during the buildup to World War II. He joined the Royal Air Force and became a bomber pilot. His six year old cousin John Saunders became fascinated with the aeroplane models in Anthony's home and idolised him when home on leave and even attended his marriage to a beautiful lady, Joan. John's first inspiration to aviation was born. Anthony graduated from Vickers Wellingtons to Avro Lancaster Bombers and joined 156 Pathfinder Squadron flying out of RAF Warboys on missions while training at RAF Upton, Cambridgeshire. During this time he was promoted from Sergeant to Squadron Leader.

He was on his 38th mission when his Lancaster was hit by a night fighter with upward firing cannon. His aircraft exploded and he with all his commonwealth crew perished. He was 25 years old and his story is one of so many similar.

David SAUNDERS

Brick No. 103 in Square 7



David Saunders, the son of John Saunders, was introduced to aviation at the Farnborough Air Shows which he attended regularly from the age of 5. The bug really bit and as he grew older

he made models of aircraft and joined 457 Squadron Air training Corps. A soon as he was of suitable age he joined The Royal Air Force as an ordinary airman and worked on Canberra aircraft as a line fitter and then Victor Tanker aircraft as a fitter at RAF Marham. He studied in order to obtain promotion and was sent to RAF St Athan where he specialised on quality control and was promoted to Technician. He then applied to take a degree in aircraft design and obtained this at the Royal Military College, Shrivenham, receiving he British Aerospace award. He was promoted to Lieutenant. Subsequent postings took him to RAF Lynham and RAF Brize Norton where he was engaged in Herculese logistics. He left the RAF to join the RNZAF deciding to emigrate. He has since retired and became Chairman of the Royal Aeronautical Society, Wellington. He has lectured on historic British aviation achievements and RAE History.

His son, Peter, is also a keen aviation enthusiast and attends the very strong vintage aviation events that prevail in both North and South Islands and, following his father and grandfather, is a member of the RNZAF Cadet Force, keen to learn to fly in addition to becoming a Doctor.

John SAUNDERS

Brick No. 101 in Square 7



John Saunders was a boy scout in the 1st Ash Vale Troop when invited to the 1948 Society of British Aircraft Constructors Ltd (SBAC). Air Show, the first at the RAE Farnborough. This renewed an earlier wartime interest in aircraft. In 1949 he had joined 457 Farnborough Squadron of the Air Training Corps and this Squadron was invited to assist the SBAC by carrying out some of the numerous organisational and communication work for the show. This continued to 1952, when for some reason not confirmed, the Squadron was not invited. By this time John had learned that if one worked for the SBAC Press Tent it was possible to obtain lovely 8” x 10” black and white photographs of the aircraft and so, chancing his arm he presented himself on his bicycle at Queen's gate on the day before the show was to open and announced that he had been selected to work in the Press Tent. The Policeman telephoned the Press Tent and, to John's surprise, they confirmed an ATC cadet was expected. For a year or two following he still dressed in ATC uniform for this task but was soon well enough accepted to be able to go in civilian clothing each year. This he continued to do for almost the next 20 years. The Press Tent was run by the SBAC Press Officer, an Information Officer and their two

secretaries. John's duties were to liaise between the Policeman on the Press enclosure gate and the Staff whenever there was some question of who should be admitted. He also checked out the photographers onto the runway during the flying display, which in later years was strictly prohibited. His bicycle enabled him to go quickly to other SBAC enclosures on the site to deliver messages. John had wanted to become the SBAC Information officer, as he got on well with all the SBAC staff and considered that he would be at the centre of all new developments in aviation.

In 1972 that opportunity arose, but the work was less glamorous than expected. He was then invited to join the Exhibitions team and did so. During the mid 70s to 1990 he was involved in the major developments of the site which more than doubled the capacity of exhibits and chalet space as the International demand to be at Farnborough increased. He became Farnborough Manager and Senior Exhibitions Manager during which time he was also involved in the SBAC joint venture shows across the globe. His work at Farnborough brought him into contact with RAE Departments who were involved with assisting the success of the Air Shows. He was able to appreciate the value of that support and the enthusiasm of everyone involved in obtaining the success that this international show case achieved.

Sam SELLARS

Brick No. 398 in Square 24



I first met Sam in 1962 in 45 Department RAE where he was employed as a fitter in what had been the Guided Weapons (GW) main workshop P67 Building. Most of the engineering work undertaken in 45 Dept at that time came from the scientific staffs in Space Dept Q134 Bldg. Space Dept had naturally evolved from GW where supporting technologies had merged.

Sam Sellars was a registered RAE Apprentice Master and I became his ‘lad’ for several months to learn bench fitting work - filing, drilling and heat treatment – whilst engaged in the manufacture of components for the customers (mainly Boffins) of 45 Dept.

Sam Sellars was born c1911 and joined the Army in 1933. He served with the Royal Tank Corps and REME in Quetta and West Africa. I don’t know any other detail other than he did tell me that at one time he had to service military vehicle engines in desert conditions, including stripping engines down to replace crankshaft ‘Big End’ shells with sand blowing around at the same time.
Sam also told me that had a brother in the Army who died in an earthquake somewhere in, I believe, the Middle East, during the 1930’s.

Sam joined RAE in 1946 presumably having been demobbed after WWII. Soon after joining RAE he was transferred to Bramshot where he worked on the Rocket Test Vehicles CTV1 And CTV2. The original RAE F1E aircraft hangar/workshop was enlarged and converted in 1948 to become the main Guided weapons workshop for the newly formed Guided Weapons Dept in Q134 Bldg. Sam’s ,Bramshot section was split in two with one half, including Sam, being transferred back to the main site c1950 where Sam became a founder member of 45 Dept in the newly built P67 Bldg. Over the next 30 years Sam worked on many projects including camera and equipment installations on towed target aircraft, radar controlled kinetheodolites and the early GW weapon projects Skylark, Black Knight and Black Arrow.

Sam officially retired age 60 on 8 January 1971 but remained in full time employment until November 1975. In the period leading up to his final retirement he was involved with projects on solar arrays involving working with space contractors with occasional deployments away from RAE.

Sam was awarded the Imperial Service Medal in 1971.

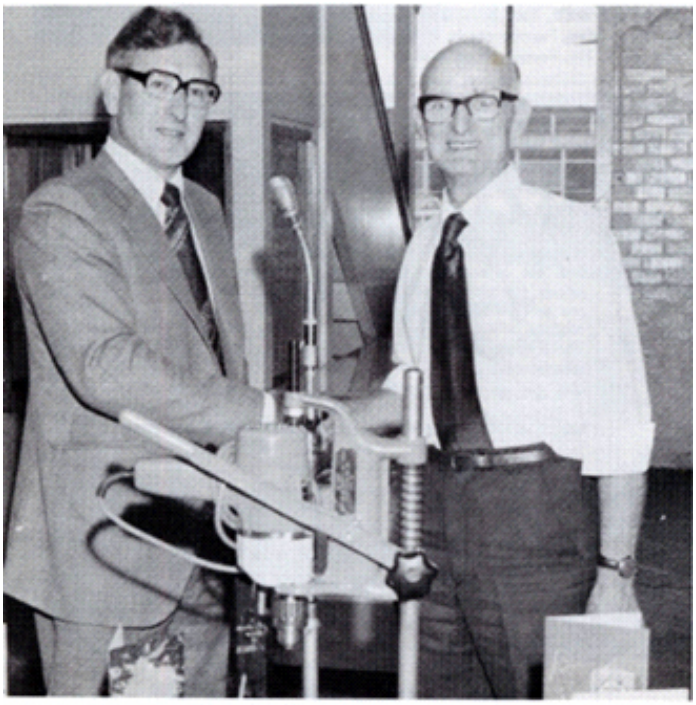
During his 30 year career at RAE he was a solid and respected hands on craftsman and took many young trainee apprentices under his wing each for several months. During this period

also he was a dedicated Apprentice Master and helped many young lads gain confidence in their trade training in a cheerful and very supportive manner. He was a patient and kindly Instructor and became almost a fatherly figure to many including the undersigned. We became good friends sharing a similar interest in radio construction with the emergence of transistors at that time. Later I met Sam's wife Pat and was made welcome visiting their RAE home in Cove and meeting very occasionally at 45 Dept social events.

Sam lost his wife Pat not too long after retirement and moved to Farnborough 'The Grange' Estate where he enjoyed socialising at the RAE Sports and Social Club just across the main Farnborough Road. Sam loved dancing and here he met and married again to Jessica his dancing partner. Jessica died in 1996 and Sam soldiered on alone but still fairly active until he too died on 18 October 2004. I attended his 'Humanist' funeral with the late Laurie Jenkins (1959 RAE Apprentice) and it was typical of Sam, a happy celebration of his life, which was played out with the song "The Sun Has Got His Hat On".

A really lovely mentor and friend.

Maurice Shakespeare
RAE Craft Apprentice 1960 - 65
FASTA Member
10 April 2024



Mr. L. Almond, 'C' Division Engineer, (left) presents Mr. Sellars with an electric drill and stand from his colleagues

Sam Sellars retirement – October 1975



Sam Sellars awarded Imperial Service Medal – Centre back row – 30 September 1971

The Director, Sir Morien Morgan presented eight out of nine Imperial Service Medals at a ceremony held in the Fabric shop on 30 September. One of the recipients, Mr Charles Ledden of HLP Department, was unable to attend.

Speaking before the presentation Sir Morien spoke about what he called the 'RAE spirit'. 'This' he said, 'was particularly noticeable when distinguished visitors have been to RAE'. Several, including the head of the Civil Service, Lord Jellicoe had remarked that all the people to whom they had spoken had shown a great keenness about their work and pride in the Establishment.

The Director then presented the medals after citations had been read by Mr S A M Thew, Principal Labour Manager.

ISM Ceremony Report

Mr Sam Sellars, *Craftsman Fitter, 45 Department.*

Mr Sam Sellars joined the RAE on 1 January 1946 after service in HM Forces. Soon after he joined Bramshot workshops in Guided Weapons trials division. Later this division was divided and a section became the nucleus of the present 45 Department, making Sam Sellars a founder member. Sam has been involved in many projects. Amongst them camera and equipment installation on towed target aircraft, installation work associated with a wide variety of trials including radar controlled kine theodolites, and the early guided weapon projects, such as "Skylark", "Black Knight" and "Black Arrow". Sam Sellars, formally retired on 8 January 1971 but continues to serve in a disestablished capacity.

Sam Sellars - ISM Citation

Maurice SHAKESPEARE

Brick No. 67 in Square 24



My first association with RAE was as a 16 year old through being accepted for a 5 year Engineering Craft Apprenticeship from 1960 to 1965, straight from Guildford Secondary Technical School.

This scheme from 1960 to 65 is recorded under the write-up for another Cody commemorative brick entitled “Forever Grateful for a Training Second to None” [See Brick No 351 Square 24]. The story behind this brick is entitled “1960 RAE Apprentices Intake” which is located at the beginning of this book.

At the end of this 5 year training, I was employed as an ‘Instrument Maker Grade II’ in 45 Dept (P67 Bldg). This was on the former site of an aircraft hangar known as F1E, which was redeveloped in the late 1940s and became the RAE Guided Weapons (GW) workshop and, eventually during the late 1960s, became the main instrument shop, after closure of 44 Dept located in Q4 area.

In December 1966, I moved on promotion to an ordinary Design Draughtsman in Technical Facilities (EQ) office in Q4 Bldg, dealing with plant and facility installations. In 1968, I moved into Weapons Dept Q64 Bldg Drawing Office for one year and then transferred across the airfield to another Weapons Design Office, section in T50 Bldg next to the high security ARL compound and nearby Pinehurst Gate, alongside the Basingstoke Canal. Having continued with day release Technical college studies for a Higher National Certificate in Mechanical Engineering, thanks to the generosity of RAE, in 1968 I gained Student membership of IMechE. In 1969, I applied for a Technical Assistant (Engineering) post in the Civil Service ‘Open’ competition. To my surprise I was accepted as a direct entrant Engineer III and given a ‘ticket’, which meant I then had to find a suitable vacancy somewhere within MOD. After some delay, I secured a post in the Ministry of Technology as an Assistant Resident Technical Officer (Aircraft) [A/RTO(A)] at BAC Weybridge, starting in August 1970, with design and airworthiness responsibility for Pembroke, Varsity and Sea Prince aircraft, on behalf of MOD. This was not a happy time in the aircraft industry with many cutbacks and there were lots of redundancies at Weybridge after cancellation of the BAC 3-11 project late in 1970. In December 1971, I level transferred to Hawker Siddeley Aviation, Kingston, with similar responsibilities for Gnat, Hunter and Meteor aircraft. Soon after arriving at Kingston, the RAF Gnat aircraft suffered a major structural failure, which grounded the advanced training fleet, including the RAF Red Arrows display team. Following a fleet-wide inspection of all Gnat aircraft, a full scale rear fuselage fatigue test was

undertaken resulting in an urgent modification programme to strengthen the fin to rear fuselage attachment.

In 1974, I moved on promotion as an Engineer II into the MOD(PE) Project Office, St Giles Court, London, with responsibility for the same aircraft at HSA Kingston. In 1976, the VC10 CMk1 was added to my responsibilities, with visits back to BAC Weybridge. In 1977, the VC10 Air to Air Refuelling Tanker (AART) project began, with eventual conversion of 9 ex-civil VC10 aircraft into 3 point AARTs. This was an extremely busy period in my career and I moved full time onto the VC10 Tanker conversion programme, as well as continuing with the RAF Transport CMk1 design and airworthiness support.

After 9 years on the VC10 Tanker programme, which saw delivery of 8 of the 9 K2/K3 aircraft to the RAF, I level transferred back to RAE Farnborough in 1986, from whence I had emerged 16 years previously. This appointment was as an Aircraft Manager in Flight Systems Dept, looking after the "Nightbird" Buccaneer research aircraft XV344. "Nightbird" stood for "Night By Infra-Red Detector". As Aircraft Manager it was my task to project manage the installation of the boffin's equipment into the airframe, and ensure the airframe was serviceable for a pretty intensive trials programme. For the next 5 years, the aircraft was modified with several different IR equipments, culminating in the very successful TIALD (Thermal Imaging Airborne Laser Detection) programme, which eventually saw both research pods being used very successfully in the early 1990s Gulf War.

My final promotion came in 1990, to Principal Engineer (PPTO), appointed to Flight Systems (FS) as Air Fleet Manager with responsibility for co-ordinating the FS research fleet of aircraft at both Farnborough and Bedford. As part of the RAE reorganisation under the post-1991 RAE/DRA formation, this role was soon expanded to cover all research aircraft and facilities across all departments, including the rationalisation of both the numbers of research aircraft and transfer of the Aircraft Department organisation into Flight Systems Department. This reorganisation coincided with rationalisation of the R&D airfields, with closure at Farnborough and Bedford and transfer to A&AEE Boscombe Down. Another hectic period!

In 1997, I level transferred back into Flight Systems as project manager within the weapon aiming section, once again dealing with system installations and trials across a range of aircraft, including Buccaneer, Harrier, Tornado and Eurofighter.

Retirement at 60 came in July 2004 after a total of 44 years' service to MOD, including 28 at RAE Farnborough.

Farnborough Air Sciences Trust (FAST)

The first 10 year period of my return to RAE (1986 to 96) saw massive changes in that organisation, which eventually morphed into an agency of MOD and eventually renamed 'QinetiQ'. A brand new research complex was built around the existing 5 Metre Wind Tunnel, close to NGTE Pyestock, also absorbing the remains of the Concorde test facility long since abandoned. After nearly 30 years close association with RAE Farnborough, I was acutely aware of its tremendous history of research and support to the wider UK aerospace industry. FAST was launched in 1993 and at the bi-annual SBAC Air Show of 1994, which my late wife Sandra and I attended, we came across a FAST stand located on the airfield Radar

Terrace, advertising the formation of a new RAE Museum. In attendance were the founders Fin Gordon, Laurence Peskett and Charlie Fleming. At this time, RAE had morphed into the Defence Research Agency (1991) as a stepping stone towards privatisation. The Original RAE Museum (located in G1 Building where the FAST Museum is today) was closed in 1993 and most of the museum artefacts were sent to the Science Museum in London, where they remain to this day, stored in long term environmentally controlled conditions.

The FAST Association (FASTA) was formed in 1995, and a first meeting of supporters and enthusiasts was held in a building close to South Gate in RAE Road. Here a FASTA committee was formed and membership invited. I joined (FASTA Member No. 12), along with Mike Slade and others, to form a supporting nucleus to the 3 Trustees mentioned above. The run down of RAE Farnborough on the old factory site had already begun in 1994, as plans for the brand new HQ (later QinetiQ) at the NGTE end of the Farnborough airfield got underway.

Almost immediately there began a race against time to collect and preserve potential museum artefacts, reports, paperwork and memorabilia that would form the nucleus of a new museum, where the original RAE collection was no longer available. Over the next 5 years, a band of FASTA volunteers scoured the now vacated old RAE establishment, where there were many nooks and crannies stuffed with paperwork and artefacts squirreled away over many years, and much of it mostly forgotten. It was rather poignant that in some areas, particularly workshops, there were still half empty cups of coffee lying around (reminiscent of the tale of the Marie Celeste) where skilled workers had been paid off and workshops stripped of machinery and closed, leaving everything behind, after nearly 90 years of continual aeronautical and space research activity since the Royal Engineers moved to Farnborough and Cove Commons from Aldershot in 1905. Many of the volunteers, not least the late Mike Slade, were at the forefront of this search and rescue activity, spending countless hours at lunchtimes, evenings and weekends scouring and rescuing potential museum material.

In 1996, the Trustees negotiated a peppercorn lease on a cavernous former Wind Tunnel building, R52 in Hall Road, right opposite the 24ft Wind Tunnel. Evenings and weekends were taken over by volunteers collecting and storing anything that might prove useful to FAST, including furniture etc., as well as artefacts from the now abandoned former main factory site.

By 1999, FAST was becoming established as the official museum of the former Royal Aircraft Establishment, including the many outstations at Bedford, West Freugh, Aberporth and Llanbedr. Significant achievements in the first 5 years were the English Heritage Grade I Listing of the 2 main Wind Tunnels and establishment of a museum organisation based in R52 Building.

One of the very keenest volunteers was Mike Slade, who I first met when he was a storeman in the ‘N’ & ‘D’ Shed area of Aircraft Dept and I was Aircraft Manager of the Flight Systems Dept ‘Nightbird’ Buccaneer XV344 in Y1V building alongside Western Hangar. Soon after closure of the old factory site and move to QinetiQ in 1996, around the 5 Metre Wind Tunnel, Mike was promoted to an Exp III employee in Materials Dept. Here he enjoyed the freedom, as part of his duties, to visit different places within the newly completed QinetiQ establishment. Mike had an incredible knowledge of the old RAE buildings and knew

personally many of the people within QinetiQ, who were mostly ex-RAE. It was through many of his contacts that we got to know about surplus items and equipment worth saving. Thanks also to one of the QinetiQ departments, we were able to borrow a large furniture van type vehicle, once we had all moved over to what became the new QinetiQ HQ, which replaced RAE from mid-1996. With this van, working at lunchtimes, evenings and weekends we were able to collect and carry a lot of equipment from both QinetiQ and within the old factory site into the R52 FAST Storeroom on the old factory site.

NOTE: See also the separate write-up for the Cody memorial brick in memory of Mike Slade. Brick No. 48 Square 24. Once the FAST old factory site sold off for redevelopment (c2000) and the FAST Museum was established in G1 Building (2002), our factory 'buccaneering' days were somewhat curtailed, though we still maintained our QinetiQ contacts and collecting role.

Maurice Shakespeare
FAST Founder Member 012
28 November 2025



Maurice (3rd left) Flight Systems Aircraft Manager - "Nightbird" Buccaneer XV344 - TIALD Trials completion at West Freugh, Scotland c1990



Maurice Project Managed QinetiQ Nightbird Buccaneer (Gate Guardian) Display at Farnborough. Completed March 1998 with 10 year life aim. Still extant in 2025!



Maurice was VC10 K2/K3 - 3 point Tanker Conversion MOD(PE) Project Officer, St Giles Court, London (1977 to 1986)

Dr Beatrice T SHILLING OBE PhD MSc CEng

Brick No. 738 in Square 18



8th March 1909 – 18th November 1990

Beatrice Shilling was born at Waterlooville, Hampshire, the daughter of a butcher. After leaving school, she worked for an electrical engineering company for three years, installing wiring and generators. Her employer, Margaret Partridge, encouraged her to take a degree in electrical engineering at Manchester University; she completed this in 1932 and stayed on for a year to do a MSc in mechanical engineering. She worked as a research assistant for Professor G. F. Mucklow at the University of Birmingham before being recruited as a scientific officer by the Royal Aircraft Establishment.

During the Battle of France and the Battle of Britain in 1940, it became apparent that the Rolls-Royce Merlin powered Royal Air Force fighters had a serious problem with carburettors while manoeuvring in combat. The negative G created by suddenly lowering the nose of the aircraft resulted in the engine being flooded with excess fuel, causing it to lose power or shut down completely. German fighters use fuel injection engines and did not have this problem so, during combat, they could evade RAF fighters by flying negative G manoeuvres that could not easily be followed.

Beatrice devised a simple, yet ingenious, solution that was officially called the R.A.E. Restrictor. This was a small metal disc with a hole in the middle, fitted into the engine's carburettor. Although not a complete solution, it allowed RAF pilots to perform quick negative G manoeuvres without loss of engine power. By March 1941, she led a small team on a tour of RAF fighter bases, installing the devices in their Merlin engines. The restrictor was immensely popular with pilots, who affectionately named it 'Miss Shilling's orifice' or simply the 'Tilly orifice.' It continued in use as a stop-gap until production of the pressure carburettor in 1943.

After the war, she worked on a variety of products including Blue Streak missile and the effect of a wet runway upon braking. Beatrice Shilling was once described by a fellow scientist as "a flaming pathfinder of women's lib"; she always rejected any suggestion that as a woman she might be inferior to any technical and scientific fields. However, a brusque manner and a contempt for bureaucracy led to an uneasy relationship with management. Beatrice worked for the RAE until the late 1960s, but never achieved high rank within the organisation.

She held a doctorate from the University of Surrey, CEng and was a member of the Institution of Mechanical Engineers and the Women's Engineering Society.

Beatrice married George Naylor, in September 1938. He also worked at the RAE. According to an anecdote, she refused to marry him until he had also been awarded the Brooklands Gold Star for lapping the circuit at 100 miles an hour. During World War 2 he was a bomber pilot with 625 Squadron RAF and reached the rank of Wing Commander.

Fred SHIPGOOD

Brick No. 852 in Square 17





Fred Shipgood as an RAF Radar Fitter during WW2



Marriage to Margarita Payne in 1950

Born as Frederick John Shipgood on the 29th October 1923 in North Shields (now called Tyne & Wear). After an apprenticeship in a radio shop in Tynemouth, Fred (as he was known) was called up during WW2 to serve in the RAF as a Radar Fitter (see photo overlead). At the cessation of hostilities he was demobbed and entered civilian life in the then Ministry of Civil Aviation. He worked at several airports and transmitting stations around the UK area as a Radio Service Mechanic. This included RAF Usworth in County Durham.

In 1950 he married a former Royal Navy Wren, Margarita Payne (see photo overleaf). In 1955 they moved to Farnborough, Hampshire. As a consequence in 1961 he joined the Air Technical Publications (ATP) unit in the RAE. This was classed as a Lodger Unit - just using the facilities of the RAE but administered by its head office at Chessington, Surrey. ATP section produced technical manuals, mainly for the RAF and a few for the Royal Navy. Fred's time in ATP was

spent in the wooden G1P building which was situated just below and behind the existing G1 Building (of Trenchard fame).

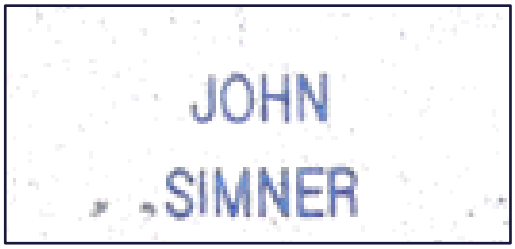
After a spell at ATP Chessington head office he went back to the RAE in 1969 into Engineering Training, in what was euphemistically known as the RAE Apprentice Shop. Never-the-less this unit was a fully functional training unit within the confines of the RAE. This is where Fred spent his time as an electronic instructor. There he also contributed to the training syllabus for the electric/electronic trades and wrote some associated books and technical articles up to his retirement from the RAE in 1985.

He had been very studious all his life. In his latter RAE years he took an ‘O’ level in French, and in 1980 a BA with the Open University. His outside interests were jazz, classical music, painting and ballroom dancing. He was an accomplished painter, and with his wife, won many medals on the dance floor. Also, they were both dedicated Diana Durban fans.

Sadly his wife, Rita Shipgood, passed away in 2003. It was a few years later that Fred’s health was seen to deteriorate. Right up to the end he did not suffer and eventually passed away on the 23rd of March 2014 at Manor Place Care Home, Aldershot. He was cremated on the 10th of April 2014 at Aldershot Crematorium. Fred will be sorely missed not only by his friends but especially by his daughter Lesley and son Alan. It was therefore a privilege for me, Mike Holmden, to have the opportunity to write this piece for them.

John SIMNER

Brick No. 1170 in Square 59



John Simner (1936 – 2007) was my father. He was born, lived and died in the midlands, and used to love to visit the RAF Cosford museum. He didn't work for RAE and as far as far as I'm aware, he never visited the Farnborough Air and Science Trust Museum, although I like to think he would have found it very interesting had he been able to visit.

Helen Taylor (daughter)
24 December 2024



John Simner c1955

Richard J SIMPSON

Brick No. 814 in Square 33



I joined RAE in 1953 as a Craft Apprentice having no school qualifications. I can remember going to RAE for an interview – Mum and Dad came with me. Mum made the point to one of the interviewers that Grandad had been in the Royal Flying Corps and that Dad had been in the RAF during the war. I think it must have impressed them, bearing in mind that I had also been in the Air Cadets.

I used to cycle close on 18-20 miles from Winkfield to Farnborough on a Monday in all weathers and stay in the Apprentices Hostel during the week, sampling George's delicacies which were dispatched with a plop onto the plate. I remember some wag, one day, had loosened all the tomato sauce tops, resulting in a spray of the contents. Happy days.

The first year in the Apprentices Training Shop was fantastic. Mr Dickenson, Mr Jackson and several others had us at first filing flat with various test pieces such as Tap Wrenches, Inside and Outside Calipers and Finger Clamps, etc.

I passed out in 1959 having spent time in various locations around the RAE, namely 45 Department with Colin Wearing and Mr Dowse. My Apprentice Masters there were Terry Friend and Les Stoker. I can remember saying to Les Stoker that I did not like internal screw cutting. He went to Colin Wearing and had me making lots of brass pipe terminals which involved internal screw cutting, knurling etc.

I spent some time in the Hangars fitting out Canberra jets with the very brass terminals I had made. These Canberra jets were to go to Woomera to carry out air sampling from the atomic tests.

I left RAE when I was 21 in May, 1959 and had done a six year apprenticeship in fact because in those days you could not be a Tradesman until you were 21.

I then had various jobs; 3 years at Ferranti in Bracknell and various other jobs before ending up at Rathdown Industries in Ascot. My job was to manufacture jigs and tools for secondary operations on springs and pressings. I met my wife there and stayed until I had a difference of opinion with my foreman. They decided that I should look for alternative employment.

I was confident of my ability in making springs and pressings. I decided that I would start on my own. After cashing in my superannuation of about £1,100 I had some business cards printed and hit the road, knocking on doors from Factory to Factory. It took 2 weeks to get my first order, from a company called Lectromec Controls in Windsor. I purchased various jigs and tools along with what was known in the spring industry as a Carlson Hand Coiler. With this on board, I was able to start my business. My first month's turnover was £95.50. After 6 months it was £439.23 – I was away.

I worked out of my garage for 2 years before renting a small factory about 200 yards from our house. We started to employ people at the factory. First was a couple of production workers, one being Lesley, my wife, who doubled up as Secretary/Chief Cook, etc.

We moved to larger premises on the Reading Road in Wokingham and by this time we had eight employees plus about another 8-10 carrying out secondary operations on outwork and we had several Automatic Spring Coiling machines.

We moved once more before moving to our current premises, near Wokingham Station where we employ about 20 people. The spring coiling machinery we have in the factory these days is far more sophisticated and avoids having, in the majority of cases, any secondary operations.

Having joined FAST, I met David Wilson when he was heading the Cody Flier Project. I offered to help and we supplied several different springs, including the two suspension springs.

The Company is still trading under the name of Simpson Springs and Pressings Ltd. Both of my sons and one of my brothers are working for us. Our son Derek now runs the business which, after riding the 2008 recession is doing very well.

I can remember the words of one of the tutors in the Apprentice Training Shop saying that there is only one way to do a job – "That is, Right". These words stayed with me and enabled me to be successful and own my own business.

Richard SIZER

Brick No. 1074 in Square 54



Eur Ing Richard Sizer C Eng FIET FBCS CITP (aka TRH and Dick) joined RAE in February, 1943 working in Electrical Engineering Department on British, American and German (captured) airborne electrical power supplies. Post-war, he moved to Trials Department

working on 600megacycle telemetry equipment fitted to guided weapon test rounds at Larkhill and Aberporth firing ranges.

He then moved to IAP Department to work on replacement of analogue bombing and navigation systems with emerging digital real-time systems leading to involvement with the TRR 2 project – a documentary DVD on this aspect of the work can be viewed in the FAST Museum.

Post cancellation of TSR 2, Richard Sizer was seconded to the Ministry of Transport to join a new team involved with an experimental system for the real-time computer-control of road traffic in West London. The work involved liaison with the local authorities, the Metropolitan Police and BT communications staff.

Having been promoted in absentia, he returned to RAE to join Mathematics Department to build up the proposed new central computing facility as head of Computing Services Division described in the FAST Monograph 02 of September, 2014.

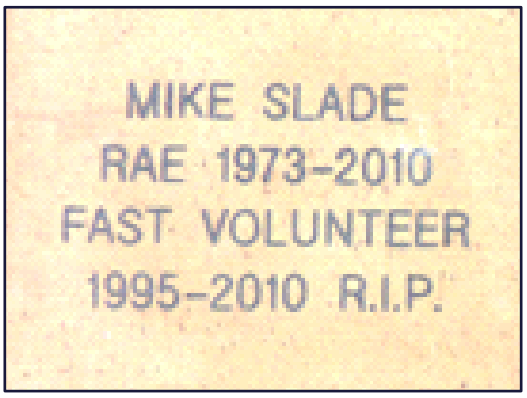
In 1980, he transferred to the HQ of the newly formed Admiralty Research Establishment to work on a computer network linking the previously separate establishments of ASWE, AMTE, AUWE and ACL. On retirement from MoD, he joined Logica as a consultant on IT risk analysis, risk management and security.

For several years, Richard was the UK delegate on Technical Committee 9 of the International Federation of Information Processing (IFIP) and in 1998, received the IFIP Kristian Beckman

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Mike SLADE

Brick No. 48 in Square 24



RAE Employee and FASTA Founder Member

Mike joined RAE Farnborough in 1973 straight from school, mainly because of his love of aeroplanes. We met soon after I returned to RAE in 1986, where I worked as an Aircraft Manager for Flight Systems Dept, “Nightbird” Buccaneer XV344, with an office on the edge of the airfield next to Western Squadrons ‘W’ hangar.

At that time, Mike was an airfield Storeman next to ‘N’ Shed (Hangar) just across from ‘W’ hangar, and I got to know him through the issue of Ground Crew clothing in respect of airborne trials support at RAE West Freugh later that year.

The FAST Association was formed in 1995 and a first meeting of supporters and enthusiasts was held in a building close to South Gate in RAE Road. Here a FASTA committee was formed and membership invited. I joined (FASTA Member No. 12) along with Mike Slade and others to form a supporting nucleus to the 3 founding Trustees - Fin Gordon, Laurence Peskett and Charlie Fleming. The run down of RAE Farnborough on the old factory site had already begun in 1994 as plans for a brand new HQ (later QinetiQ) at the NGTE end of the Farnborough establishment got underway.

Almost immediately there began a race against time to collect and preserve potential museum artefacts, reports, paperwork and memorabilia that would form the nucleus of a new museum. The original RAE Museum collection had been sent to the IWM where it remains today in storage under environmentally controlled conditions. Over the next 5 years, a band of FASTA volunteers, including Mike Slade, scoured the now vacated old RAE establishment, where there were many nooks and crannies stuffed with paperwork and artefacts squirreled away over many years and much of it mostly forgotten. It was rather poignant that in some areas, particularly workshops, there were still half empty cups of coffee lying around, reminiscent of the tale of the Marie Celeste, where skilled workers had been paid off and workshops stripped of machinery and closed, leaving everything bare and empty after nearly 90 years of continual aeronautical and space research activity since the Royal Engineers moved to Farnborough and Cove Commons from Aldershot in 1905. Mike Slade was at the forefront of this search and rescue activity spending countless hours at lunchtimes, evenings and weekends scouring and rescuing potential museum material.

In 1996, the Trustees negotiated a peppercorn lease on a cavernous former Wind Tunnel building R52 on Hall Road, right opposite the 24ft Wind Tunnel. Evenings and weekends were taken over by volunteers collecting and storing anything that might prove useful to FAST, including furniture etc as well as artefacts.

Mike by this time was promoted to an Exp III employee in Materials Dept. Here he enjoyed the freedom, as part of his duties, to co-ordinate and visit different places within the newly completed QinetiQ establishment. Mike had an incredible knowledge of the old RAE buildings and knew personally many of the people within QinetiQ, who were mostly ex RAE. It was through many of his contacts that we got to know about surplus items and equipment worth saving. Thanks also to one of the QinetiQ departments we were able to borrow a large furniture van type vehicle once we had all moved over to what became the new QinetiQ HQ, which replaced RAE from mid 1996. With this van, working at lunchtimes, evenings and weekends, we were able to collect and carry a lot of equipment from both QinetiQ and within the old factory site into the new R52 FAST Store.

Occasionally both Mike and I would be invited to visit a particular QinetiQ laboratory or office where they had some surplus equipment or paperwork to offer to the museum. Mike’s ability to sniff out items of interest was boundless and his powers of observation legion. Often we would come away from such a meeting and he would say “did you see this or that” which, concentrating on the particular job in hand, I hadn’t. This would often lead to another visit and reclamation of a valuable item.

Once the FAST Museum was established in G1 Building (2002) and the old factory site sold off for redevelopment, Mike's FAST 'buccaneering' days were somewhat curtailed, though he still maintained his QinetiQ contacts and collecting role. Mike supported FAST activities magnificently, including attendance at local exhibitions, SBAC shows and supportive activities relating to the Cody Flyer replica build programme.

In July 2010 it all came to a sudden and sad conclusion when Mike quite suddenly and totally unexpectedly died aged just 56 years. A more dedicated RAE supporter would be hard to find and many of the artefacts in the FAST collection today are down to Mike, who worked tirelessly in his support and dedication of the FAST concept, helping to preserve the memory of the Royal Aircraft Establishment at Farnborough.

Mike was a very good friend.

Maurice Shakespeare, FAST Volunteer
26 December 2024



MICHAEL ALEC SLADE
16 February 1958 - 20 July 2010



Typical Mike Slade initiative creating a FAST stall to advertise and recruit members to the Museum

David John SMALL

Brick No. 98 in Square 40



Our son David Small joined RAE as a young apprentice in 1972. He enjoyed his apprenticeship and stayed on for 5 more years. We can't remember in which department, he did not tell us much about his work. We believe he did something towards the clock sculpture in Kingsmead. Either in design or making parts. We also think he had a hand in making models of Concord for testing in the wind tunnel.

We do remember an amusing story he told us. He forgot his gate pass one day, the man on the gate rang his head of department and asked for a description of David and he was told he looked like a rusty Father Christmas and David was allowed past. David had, as was the fashion in the seventies, shoulder length hair (reddish brown) and a full beard.

Sadly, David died in February 2011 from cancer aged 55 years.

Eric L SMART

Brick No. 705 in Square 3



Before joining the air Ministry at AMRE in November 1939 as a Technical Officer, my father Eric Smart had for 11 years worked in their research and development Laboratories of The Gramophone Company Limited and later at EMI, the Plessey Company at Ilford and the Decca Record Company in Chelsea, London.

During these formative years his work ranges from acoustic gramophones, to electrical reproducers, recording, early production mains radio receivers, the preparation modellers of the EMI television system receivers and Television Studio and transmitting equipment for Alexandra Palace.

So his career started-he loved it and I can remember watching the Queen's Coronation 1953 aged just 8 years old on one of the first Television's Daddy brought home to Farnham in our house from the RAE! I was the only child at my preparatory school in Farnham who had a television; it was amazing.

Daddy did have a varied career for many years too at St. Giles Court headquarters of the Ministry of Aviation returning to the task as Head of Technical Services RAE before he retired.

I do hope you find this interesting we do not now visit Farnham as both my parents died in 1996 but have many fond memories.

Peter Jack SMITHAM

Brick No. 1004 in Square 51



Born Peter Jack Smitham on 29th May 1929 in Farnborough, Peter was the youngest son of Richard and Margaret (known as Maggie) and baby brother for Roy and Ken.

Peter attended school in Queens Road and Abinger House, Farnborough and later went onto Technical College both in Farnborough and Guildford. Peter completed his apprenticeship to be a carpenter and joiner, having joined the Royal Aircraft Establishment in 1943.

The time came to do his National Service and Peter very proudly joined the RAF and was stationed in Aldergrove, in Northern Ireland.

Jean came along when she was aged just sweet 16 and they were married in St George's Church in Aldershot on 25th August, 1951. They spent the first 2 years of their married life living with Peter's parents before becoming the proud owners of their own home in All Saints Crescent, Farnborough.

In November 1952 they were blessed with their first daughter Cheryl and in March 1956 were equally delighted when Wendy arrived.

Happy memories were made with the family taking walks in the woods, having picnics and caravan holidays. There were many trips to the New Forest for picnics, where Peter would produce his faithful primus stove and proceed to make a cup of tea. These trips were once made with the motorbike and sidecar with Cheryl and Wendy snugly wrapped in blankets in the sidecar and Jean travelling as pillion on the bike. In later years they were made in greater comfort in a car.

Peter worked for the RAE and the National Gas Turbine Establishment for the rest of his working life, mainly in 40 Department, and proudly retired from there in 1989 after a faithful service of 46 years. In his last position he was responsible for Codys, Woodworkers, Model Makers, Woodmill and the Plastic Section. During his time in this post he was involved with the very successful rebuilding of the Comet DH 88; the manufacture of the RB211; the 30ft dome for air to air combat simulation flying; and repairs to the 5m tunnel fan blades. He met many people and was well liked and respected. He also met Royalty through his work, King Fisal of Iraq, The Duke of Kent, His Royal Highness the Prince of Wales and Princess Diana, to name drop a few!

After his retirement Peter continued to play bowls as he had done for many years, at the Pyestock Sports and Social Club. The love of the outdoors encouraged Peter to learn to horse ride. He never did have any lessons, just popped into a riding school and booked an hours hack through the forest. This was enough for him to buy himself some boots and a riding hat and continue to 'hack out' on a weekly basis. Through the riding school he later became involved with the charity 'Riding for the Disabled' at Fleet and weekly escorted disabled children assisting them to sit on a pony for the experience of horse riding.

He also loved his garden, growing summer bedding plants from seeds and plugs to ensure a beautiful array of colour in the flower beds and hanging baskets throughout the summer. Mind you, Jean often thought he spent more time than he needed in the greenhouse so he could avoid the jobs she had lined up for him!

Peter was a self-taught musician who was very adeppt at playing a tune after listening to it on the radio or TV a couple of times. He played the accordion at home which was always a special treat for Cheryl and Wendy and later Jean bought him a simple keyboard which progressed to an all singing, all dancing electronic keyboard, so much so that he was banished to the bedroom to play it because there didn't seem to be a 'quiet' volume on it.

Jean, Cheryl and Wendy have asked for a commemorative brick to be laid in memory of Peter, who died in 2009, not only for his long service to the Royal Aircraft Establishment, but also as a tribute to a loving and devoted husband and father and a memorial by which the family can remember him, now and in years to come.

Nick SPILMAN

Brick No. 751 in Square 26



Early in 1983 the BBC asked me if I would spend 4 months working for BFBS in the South Atlantic - so leaving the low 90's Fahrenheit from Brize Norton I arrived in snowy Port Stanley via Ascension Island. There I worked alongside Richard Gardner (MOD) and Major Dallas (RHF) and Peter McDonagh (Another Planet) - the adventures so extreme and the experience so weird Richard, Rab and myself became firm friends - a mention too for Pete Johnson sadly no longer with us with whom we shared a great deal.

Alan SPRIGGS

Brick No. 1028 in Square 52



September 1970

Along with nearly 100 other fresh faced boys and one very attractive young Lady all gathered in the Assembly Hall along with Friends, Mums and Dads I was about to embark on a unknown journey as my indentia papers were signed.

I was to spend the next eight years of my life working and enjoying life in and around the RAE, and as I look back now I can appreciate how lucky I was.

Of course when you get 100 boys together there will always be some mischief, and I'm sure like every other intake before us we were all called together to be told we were the worst disciplined intake ever! However boys at the Hostel had still found it amusing to put a bubble car on the roof of another car, making Phil Huchings normally impeccable clock card have a small blip as he arrived on the late bus, with everyone waiting for him!!

Bombs from towel rails had been known to convert some small hostel rooms into more open plan affairs, just confirming the active minds we had been blessed with, what if I try that?

Having completed my stint in the Trog Shop I along with apprentice Lads Furlonger Peake and Halford made the short journey into `A` Shed where we were greeted by Dougey (Pappa) Beckford and ?, I need some help here, who Taught us all there was to know about the theory of Flight and everything Aeronautical

Years followed around the Airfield and with stints at Boscombe Down and RAE Bedford to broaden our Aircraft and Life knowledge. I was fortunate through all of this to had some great Apprentice masters, and was indeed fortunate to at the end of my time be in the Instrument Bay where I worked on Elliot Air Data Systems, helping the Buccaneers hit their targets!

As now as I sit at my desk overlooking the Airfield looking at a fantastic sunset I can't help but think of those days and how lucky I was…….. to escape! (only kidding)

Paul STANDLEY

Brick No. 596 in Square 35



My name is Mr. Paul Standley and I commissioned a brick together with also my Mum and Dad who also worked at the R.A.E.

I started at the R.A.E in 1985 as a mechanical engineering apprentice and went through all the various departments, finally ending up working in 38 Dept (R21) till 1994 which was the main fitting and welding department. Many projects were for the research and development aircraft that the R.A.E had but I do remember two main projects that we made. We manufactured a large rocket powered sled which mainly was made from aluminium for lightness.

The sled was then taken down to Pendine Sands in Wales where it had various types of ejector seats attached and then was rocket launched down a track at a speed to simulate a jet fighter where they then tested the seats and parachutes when they were ejected to see what sort of height, speed, distance etc they went.

The other main project that I remember was I also manufactured open ocean buoys for the Meteorological office which were positioned all around the British Isles to send weather information such as wind speeds, pressure, wave heights etc. These buoys are still used today.

My mother and father also worked there but I don't have much information on them except my Mum worked for the R.A.F communications Flight in R4F (R182) for nine years and my Dad worked in R177 for a similar time doing accounts type work.

Alfred W STANLEY

Brick No. 660 in Square 11

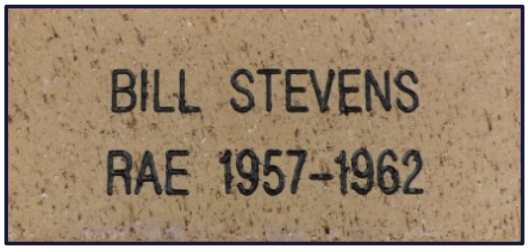


Worked at Royal Aircraft Factory prior to it becoming RAE, he continued working at above as engineer millwright until he died in 1922. He was grandfather of John Timpany, apprentice 1957-1962.

Peter Timpany father of John Timpany worked as a Storeman at the RAE 1960-1965, after retiring from the "Army Physical Training Corps" as W02. He started his working life in "John Brown's Shipyards' Clydebank, Scotland. He then "joined the "Argyll and Sutherland and Highlanders" pre-war world II and served in India. He then transferred to the Army Physical Training Corps in Aldershot. He died in 1965.

Bill STEVENS

Brick No. 599 in Square 35



D.O.B 31/07/1941. Craft Apprentice from September 1957 – 1962

Charles William Stevens, always known as 'Bill', started at the original RAE Technical College, which subsequently became Farnborough Technical College. He worked in various departments as an Apprentice, spending the last years at RAE Bramshott working on Telemetry.

After his apprenticeship, Bill spent the rest of his working life in the electronics industry, working on equipment used by the MOD and by commercial companies. He is now retired and still lives in Farnborough.

Gary P STEVENS

Brick No. 648 in Square 19



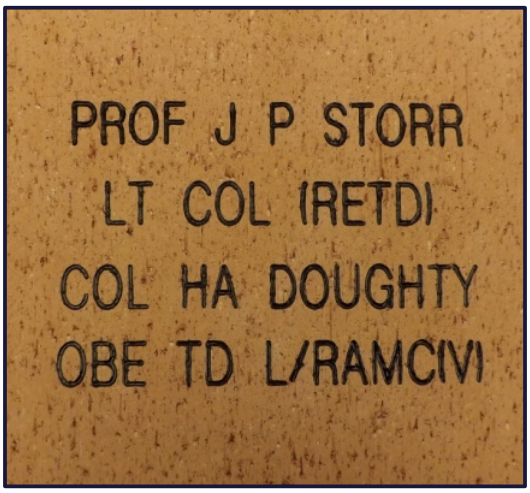
I worked in the RAE from September 1982 to approx. Sept 1987.I moved to Farnborough when I was 18 to complete the last two years of my MOD Electrical fitters apprenticeship following the closure of her HM Dockyard Chatham where I had completed the first two year of the apprenticeship. During the final two years of the apprenticeship at the RAE Farnborough I was seconded to various departments such as HLP (heat light and power), the airfield looking after runway electrical systems, the High Voltage section in HLP and the 5 metre tunnel and Concorde test frame to gain experience in all aspects of electrical fitting and electrical systems. During the apprenticeship I gain advanced City and Guilds qualifications in Electrical Installation.

Having completed my apprenticeship I was retained and worked in HLP department as an electrical installation craftsman continuing college studies gaining an ONC and HNC in Electrical and electronic engineering.

My time at the RAE was most enjoyable and the workplace was full of colourful characters, laughter and practical joking, I saw may air shows and witnessed one of the rare crashes during a show when a Buffalo aircraft belly flopped on landing having come in too steeply. I left in 1987 and have worked for major companies, Johnson Wax, Bass Brewers, Nestle and currently Mars Chocolate; the RAE was a great grounding for my Career and remember fond memories and people.

Jim P STORR and Heidi-Ann DOUGHTY

Brick No. 731 in Square 26



Farnborough Air Sciences has touched the lives of so many of us, even if we have worked in other industries and moved away from the Rushmoor area. We are very proud to buy the bricks which now lie with so many others at the foot of Cody.

Jim Storr served at what was then the Defence Evaluation and Research Agency (DERA), at the west end of the Airfield, from August 1999 to August 2001. He acted as a military advisor to the High Level Studies department of the Centre for Defence Analysis in the rank of major. He had read engineering as an undergraduate but his passion was, and is, military history. Soon after his arrival in Farnborough, he went on a tour of the old RAE site led by Maurice Shakespeare. The RAE site was deserted and awaiting demolition. The buildings had been locked up and left, months before. In one place a coffee cup had been left half full; the mould was growing over the top and down the sides. The experimental water tank was still intact, and full of water. Two of the wind tunnels were still intact. We almost wept to hear that the transonic wind tunnel had not been drained down when it was abandoned. A working example of a significant piece of aerospace technology had just been lost to posterity for the want of a couple of hours' work.

Jim was studying part-time for a PhD whilst serving at DERA. Fittingly, the doctorate was awarded by Cranfield University (Cranfield had been established after the Second World War to develop expertise in aviation technology). Much of the material for his doctorate arose from discussions with, and collaboration with, colleagues at DERA. Those colleagues include members of the Centre for Human Studies, which partly grew out of the Institute of Aviation Medicine. One colleague, for example, had formerly been the Chief Psychologist of the Royal Air Force. One legacy of Farnborough air sciences was a unique group of individuals and institutions taking forward the study of man and machines.

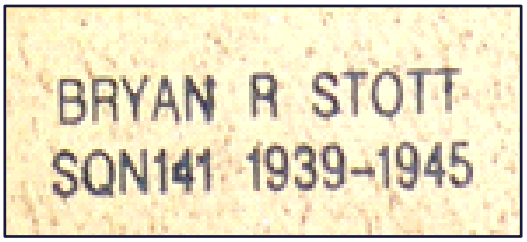
Heidi-Ann is Jim's wife, the daughter of Gillian and Bryan Doughty, both ex-RAF and FAST volunteers. Heidi-Ann finished her A-Levels at Farnborough Technical College, just across the road from the RAE site. The college really benefitted from the close association with the RAE, and science was brought alive with practical examples of application. The rooms overlooked the airfield and Heidi-Ann spent many afternoons watching the movements of the planes. She went on to read medicine in London and Cambridge. Throughout her working life she has been an active member of the Territorial Army and retired as a colonel in the Royal Army Medical Corps. Her passion remains translational research. She was awarded an OBE in 2013 for her

contribution to the development and delivery of the Ministry of Defence's blood transfusion capability.

Science is a part of all our lives. An understanding of science is essential for society and the history of science provides an essential context. We have followed the Trust from inception. It has grown brick by brick through the efforts of the volunteers and the community. Our bricks are a small token of our appreciation to you all. FAST is more than an important historical collection: it is a living community that inspires the future generations of engineers and air scientists.

Bryan Ranford STOTT

Brick No. 811 in Square 2



Bryan Stott was born on 1 July 1920 in the West Riding of Yorkshire, moving to Northumberland in 1931.

He applied to join the RAF in September 1937 and enlisted in January 1938 as a Flight Mechanic under training. After 12 weeks initial training at Cardington, Beds, he had a temporary posting in April 1938 to No 7 FTS at Peterborough as a fitter's mate. After a 6 week fitter's mate course at Manston in Kent, he completed a Flight Mechanics course at No 1 School of Technical Training at Henlow, Beds in June.

In October 1938, the whole entry moved to the new No 4 S of TT at St Athan, South Glamorgan. On passing out on 13 April 1939, he was posted to 'E' Flight of the Air Training School at the RAF College, Cranwell in Lincs, servicing Hawker Harts, Audaxes, and Furies, and Airspeed Oxfords.

In September 1939, at the outbreak of war, he was despatched to West Freugh, Scotland, with the cadets completing their bombing and gunnery training. Bryan volunteered for overseas service in December 1939, was issued with tropical kit and went on embarkation leave prior to sailing from Liverpool in the Reina Del Pacifico. His posting was cancelled at the last minute and he was sent to the Coastal Command O.T.U. at Silloth, Cumbria, where pilots converted from Avro Ansons to Lockheed Hudsons, Blackburn Bothas and Bristol Beauforts.

In June 1940 the CCOTU moved to Ringway, Manchester, and whilst there, he attended a manufacturer's course on Wright Cyclone engines. In October 1940, he remustered from Flight Mechanic to Aero Engine Fitter 11, Group 1 and, after a further course at Innsworth, was posted, as a Corporal, to No 3 FTS at South Cerney, Glos, servicing Airspeed Oxfords.

He again volunteered for overseas service in May 1941 and was posted to MU RAF Stafford, but after several weeks of waiting, he asked for a posting and was sent to No 6 FTS at Little Rissington, Glos, servicing Oxfords. In January 1942, he made a further attempt for an overseas posting but went to No 458 Sqdn RAAF at Holme-on-Spalding Moor, Yorks servicing Wellingtons, followed shortly by a posting to No 141 Sqdn at Acklington, Northumberland. At that time 141 was a night fighter unit with Bristol Beaufighters.
He remained with 141 Sqdn until it was disbanded in September 1945, moving with the Sqdn to Tangmere, Ford, Predannack, Wittering (where he was promoted to Sergeant), West Raynham and finally Little Snoring. During this time, the Sqdn changed from a defensive night fighter role to that of a Bomber Support Sqdn, operating over Germany and occupied Europe and re-equipped from Beaufighters to Mosquitoes. Meanwhile he had attended manufacturer's courses on Bristol Hercules and Rolls Royce Merlin engines.

Bryan was Mentioned in Despatches in June 1945. He was finally posted to RAF Finningley, Yorks where he serviced Lancasters until he was released from the RAF on 16 January 1946 at Cardington, Beds.

Post-war, Bryan and his family lived in Northumberland, Harrogate, York, Southport and back to North Yorkshire. Having worked for a period as Branch Manager of a national house furnishing company in the North East, he then became a Sales Executive for a carpet manufacturing company, covering the north of England up until his retirement due to ill health in 1979.

In retirement Bryan renewed his passion for cricket by becoming President of the local Cricket Club. Above all, he liked to chat and have a beer and was fondly referred to as "Biggles" by his lunchtime companions in the local village pub.

Bryan retained an active interest in the RAF Association until he passed away on 21 September 2000, aged 80 leaving his wife Jean, a son, daughter and 5 grandchildren.

Wendy Barron (daughter), 11 February 2025



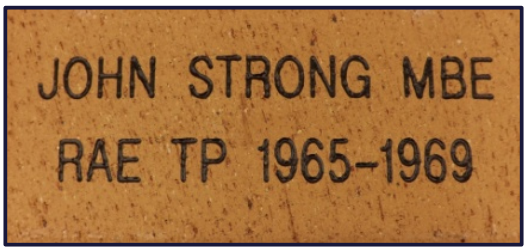
Sargeant Bryan Ranford Stott 547845 Fitter 11 Engines. Mentioned in Despatches.



Bryan representing the RAF Association

John STRONG MBE

Brick No. 174 in Square 31



This is a brief account of my time at Farnborough's EFD.

I completed the 2nd Rotary Wing ETPS course at Farnborough in 1964 and then moved to the I & E E Flight where I carried out fixed and rotary wing flight testing, principally in the field of flight instrumentation.

Two years later and after promotion to Squadron Leader, I took command of the Flight and branched out somewhat. I was by then flying some 7 types (rotary and fixed wing) each month

In 1968 I completed a brief type conversion onto the P 1127 at Boscombe Down and subsequently collected 'Farnborough's' P 1127 XP 980 from Dunsfold. Some useful work was carried out at Farnborough but when it was decided that our instrumentation work needed a two pilot machine, XP 980 was transferred to Bedford.

I was awarded the MBE in January 1969 and was posted to the Canadian Forces Staff College in Toronto in mid 1969

The end of a long and magnificent flying tour!

Simon TAYLOR

Brick No. 448 in Square 37



SAFT 1979-1982
This marks the time I was an apprentice, starting my electronics career at SAFT, a battery company. Amongst others, we produced aviation batteries, so my connection is tenuous, maybe, but a life long appreciation of aviation compelled me to help the project. I grew up in Hounslow in flats with a great view of the LHR approach and saw initial flights of 747s and Concorde jets into the airport. Time in the air cadets and moving to Farnborough in 1996 keeps my interest in aviation. But, it's nice to help the project and leave a little legacy of personal history there.

Alf THORNICROFT

Brick No. 398 in Square 24



I first met Alf in 1962 in 45 Department RAE, where he was employed as a Craftsman Turner in what had been the Guided Weapons (GW) main workshop P67 Building. Most of the engineering work undertaken in 45 Dept at that time came from the scientific staffs in Space Dept Q134 Bldg. Space Dept had naturally evolved from GW where supporting technologies had merged.

Alf Thornicroft was a registered RAE Apprentice Master and I became his ‘lad’ for several months to learn centre lathe turning skills under production conditions. Various techniques were learnt under Alf’s patient and very skilled tuition covering the full range of materials – aluminium, brass and steel, including external and internal thread cutting, internal boring and finishing to extremely taxing levels of dimensional tolerance.

Alf Thornicroft came to Farnborough from Orfordness, an MOD test and evaluation establishment located on the Suffolk coast. He was (I think) an Ipswich man who joined MOD in (????). The RAE element at Orfordness closed down c1957 and Alf with his family were relocated to the Farnborough area, eventually settling in Fleet/Church Crookham. Also in 45 Department was Craftsman Fitter Cyril Markham who I believe was Alf's brother-in-law (?).

Alf and I got on extremely well together, and as well as his tremendous lathe skills, he took a real interest in my welfare as a very green young guy making his way in the world.

I spent another 4 years in 45 Dept being employed as a Grade 2 Craftsman Instrument Maker for the final year at the end of my 5 year Craft Apprenticeship. Alf remained a good and loyal friend throughout my time in 45 Department, and now over 60 years later, I look back on his support and guidance during that splendid RAE Apprenticeship with great affection.

I moved to the RAE Design Drawing offices late in 1966 and left RAE for an MOD appointment in 1970. Some many years later in either the mid 1990s or more likely c2006, I met Alf quite by chance in Frimley Park Hospital, where he was on oxygen having severe breathing difficulties. I am sorry to record that I do not know how this turned out for Alf, being very distracted by my own close family health emergencies at that same time.

Over the course of my 5 year engineering Craft Apprenticeship, we were fortunate to be trained by some of the most skilled craftsmen. Alf Thornicroft not only passed on those skills to a countless number of young apprentices, he did so in a cheerful and very supportive manner. He was a patient and kindly instructor and became almost a fatherly figure to many including the undersigned.

A lovely guy long to be remembered.

Maurice Shakespeare, RAE Craft Apprentice 1960 - 65 & FAST Founder Member
19 November 2024



RAE 45 Department (GW Workshop) presentation in April 1956 to Mr R J Howard prior to his forthcoming marriage. Folk circled, left to right: Doris Elsworthy (Work Progress); Doris (Stores); Bert Saville (A.M./'C' - Area Eng i/c); Colin Wearing (45 Dept Foreman); Bill Killick (Chargehand ?) and possibly Alf Thornicroft ?? extreme right.

John TIMPANY

Brick No. 116 in Square 7



John Timpany joined the RAE as a Craft apprentice in 1957 after his grandmother had often talked of his grandfather working at the RAE as a engineering millwright. During John's apprenticeship he receives swimming blue in 1959 at the 'RAE Prize Distribution.' Presented on behalf of the Ministry of Supply recreation society (John was Hampshire boys champion prior to joining the RAE).

John finished his apprenticeship working in 39 Department. As a tool room model maker (one of the projects was a 6ft long Delta shape free flight model "Orion" which was mounted on a rocket then launched into free flight, the model had pressure plotting covering the surface of the modern electronic instruments sending back information to base station. This model "Orion" was the forerunner of 'Concorde Development'. After leaving the RAE 1964 he went on to work for 'Elliott Automation' Frimley as an Instrument Maker in the 'Radar Control Prototype Department' the project was DN181, forerunner of the 'Rapier Missile Guidance System'.

John was invited to join the Drawing Office at the now Marconi to train as a draughtsman after a few years. I left Marconi to work freelance as a Design Engineer Draughtsman, still working for Aerospace Industries i.e. Marconi, Easams, Racal, Air-Log and Ferranti etc.

Jim TORODE

Brick No. 293 in Square 30



RAE officer awarded MBE

Recently awarded the MBE in the Queen's New Year's Honours is retired Ministry of Defence senior scientific officer, Mr. James Torade, of Upper Hale Road, Farnham.

Mr. Torode, aged 59, began his working life at the RAF Farnborough in 1940 and remained there up until his retirement last year. His chief concern at the RAE has been associated with trials work.

He began his career on radar and then moved on to navigational equipment work, and was concerned with a variet of projects in the Air Sea Warfare Division of the radio navigational department.

From 1961 onwards his prime commitment was with sae trials and he personally built up the trials team and facilities.

Mr. James Torode, of Upper Hale Road, Farnham, who has just retired from his job of senior scientific officer in the radio and navigational department at the Royal Aircraft Establishment, Farnborough, which he joined in 1940, was also made an MBE.

Aged 59, he has lived in Farnham for about 30 years.

Throughout his 41 years at the RAE, Mr. Torode was involved in trials of various kinds, including the development of radar. Later, sea trials became his major commitment.

He was responsible for building up trial teams and for the past three years he was project officer in charge of buying and refurbishing a large stern trawler, the "Colonel Templar," now used as a research vessel by the RAE.

Mr. Torode is vice president of the RAE Gliding Club. He used to compete in gliding events and still loves flying.

His wife, Frances, is secretary of Hale WI. They have a son, Howard, and daughter.

Mark TOWERS

Brick No. 273 in Square 36



Mark Towers was born in Cumbria in 1890. He was trained as an engineer and for a period worked with the Red Star Shipping Line. He started work at the Royal Aircraft Establishment in 1913 and assisted in installing and testing the engines in the Beta airship. In 1916 he was in charge of engine installations and testing in the F.1.E and F.1.F and was transferred to 32 Department. He ran the engines in the Aerial Targets on the 'Argus' and the destroyer 'Stronghold'. He later did the running and testing of the engines of both the Brennas Helicopter and the Tarrant Triplane.

During the 1930's he spent much of his time running engines and engine installations in the High-speed Wind Tunnel and in 1939-1940 he took charge of all engines in 32 Department. With the advent of jet engines he gave lectures on the functioning of jets to RAE engine personnel. He was made Principal Foreman before retiring due to ill health in 1951. Sadly, he passed away after only a few weeks of retirement.

Ronald James TROTT

Brick No. 729 in Square 34



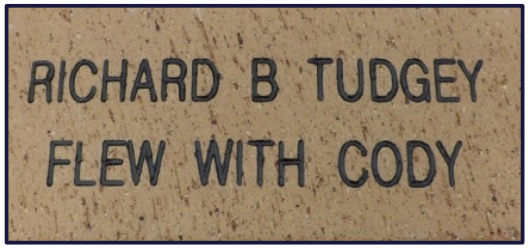
He was born in Wales on 13th March 1926. Leaving school he did a watch & clock apprenticeship in Devon, moved to Farnham Surrey in 1949, started work in R.A.E. 44 Dept in 1949. Became head of the engraving section, where I met him when I was 18, we married in 1963, and had two children, and in time two grandchildren.

He was in charge of many engraving tributes to the Royal Family, and heads of state all over the world, from traditional engraving methods to computer based techniques of today. In January he was awarded the B.E.M., and we as a family went to Lancaster House in London, to receive his medal.

He retired on 20th September 1991, and was then awarded the I.S.M. for services to the Ministry of Defence. Ron passed away on 7th April 2002. (He was a wonderful man.)

Richard B TUDGEY

Brick No. 314 in Square 30



Richard B. Tudgey (1887-1971) was a close friend of Sam Cody and one of a small group of local volunteers who helped Cody construct and repair his aeroplanes on Laffans Plain from 1909 until Cody's death in 1913. Cody rewarded their hard work and loyalty by taking on flights in his aeroplanes. Richard Tugey flew many times with Cody; on one occasion he flew with him to Bournemouth but engine problems prevented the return flight and he had to catch the train home to Fleet!

In 1912, Cody fitted for passenger seats in rows of two immediately behind his own, "and taking his son Frank Hope, Mrs Whittle (his niece) and Messrs Tudgey and Wackett both loyal helpers, he flew at seventy miles an hour on a long cross country flight around the district.

Richard Tudgey went on to join the Royal Flying Corps (ground crew) in the First World War. As a member of the RAF Reserve in 1939, he served again in France during the Second World War at the age of 52. He returned safely to England 1940 via Brittany (being rescued by the brave crew of an Isle of Man ferry!) after all routes to Dunkerque were captured by the Germans. He then worked as a driver with the Accidents Investigation Section at the Royal Aircraft Establishment, Farnborough, until he retired in 1957 aged 70.



Richard B. Tudgey, circa 1912

Note the distinctive crash helmet also worn by Sam Cody at this time.

Walter Robert (Bob) TURNER

Brick No. 938 in Square 8



Walter Robert Turner, Bob to his friends, was associated with the RAE site from 1954 to 1983. He was employed as a mathematician, and in 1978 until he left, was working in the Radio Dept. Being a very good friend of Vera Pike and Ted Minter, records show that Bob had joined the RAE Technical Society, Structures Dept. After leaving the RAE, Bob had eight happy years with ESSAMS, effectively doing his old job before tragically dying of a heart attack at the age of 61, whilst on holiday in Italy. Health wise, Bob had not had a good start in life. He developed Polio at the age of three, made a remarkable recovery and then in his early years at the RAE badly broke his leg after accepting a lift on the back of a motor cycle. So it is surprising that Bob was an enthusiastic rambler and skier all his life. Whist Bob proved himself as a very able and keen mathematician, (he and his scientist friend Vera would exchange letters discussing mathematical formulae) his interests outside of work were manifold. He was very active both in his church and local groups and made many good friends. He and Vera traveled all over the world together on holiday making the most of their leave allowances. His name on the engraved brick is shared with Miss Vera J Pike, a lifelong friend and work colleague, who Bob introduced to the RAE.



Bob Turner

Pam and Stephen TURNER

Brick No. 555 in Square 4



My career as a librarian started at the Central Unit for Scientific Photography Library, a lodger unit on the Royal Aircraft Establishment. In 1973 I transferred to the Main Library Reading Room. The Main Library was in Q4 Building, a converted workshop on the edge of the airfield, opposite the Control Tower. It was an ideal position to view the Farnborough Air Show and we were always encouraged to do so. I continued to work as a librarian at Farnborough in various roles. The part of my job I enjoyed the most was assisting the scientists with their researches. For a period I had some responsibility to provide information services to outstation libraries. I used to enjoy travelling to visit these outstations by the air ferry service. The trips in the Devon to West Freugh and back could be quite exciting at times. In 1996 the organisation had become the Defence Evaluation Research Agency (DERA) and the Information Centre moved to new purpose built premises in A4 Building. It occupied a central location on two floors near the Fitness Centre, Lecture Theatre and Restaurant. In 2009 when I volunteered for redundancy the Information Centre stock had been moved to an Information Warehouse at Boscombe Down. My final role was as an Information Analyst in QinetiQ, accessing all the tools I required to carry out my job from the pc on my desk via the intranet and internet.

Although Stephen, my husband did not work at RAE or its successors we enjoyed the social life of the organisation together, particularly in the early years. We were members of the RAE Sailing Club, RAE Staff Mess and the RAE Technical Society. I still remember the lecture Sir Ranulph Fiennes gave to the Technical Society on his Transglobe Expedition 1979-82.

I am proud to have been involved with the work of the RAE at Farnborough.

E W (Bill) TYACK

Brick No. 188 in Square 31



Bill Tyack never worked at the RAE but he has had strong associations with RAE and Farnborough throughout his career. In the early 1970s as a trials officer at A&AEE Boscombe Down he helped with RAE navigation trials on the Comet flying laboratory (XS325) and also

"used" Cove Radio. Later during several tours in the MOD he had strong links with and relied on advice from many RAE scientists. As DOR (Air) in the 1990s he was the "customer" for the Air Applied Research Programme. Finally, he was the Senior Military Officer in the DERA from 1996 to 1999.

Betty D. TYE

Brick No. 295 in Square 30



I started work at RAE in February 1938 & apart from a short time at A.E.R.E. Harwell (1950-Jan1951) was there formerly 48 years.

I finally retired from RAE in February 1986. While there I worked in various branches of the Secretarial – Personnel, Accounts, General Admin. As well as Admin. In Mech. Eng., Structures & Flight Systems Depts.

My social life was mainly at RAE too, playing Table Tennis, Badminton, Tennis, just a few of the Clubs available. I have such good memories of RAE, meeting & working with so many nice people. RAE was a great place to be part of.

William T. TYE

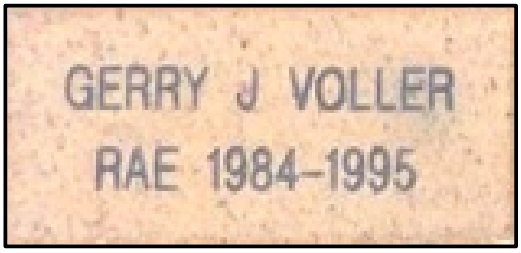
Brick No. 748 in Square 26

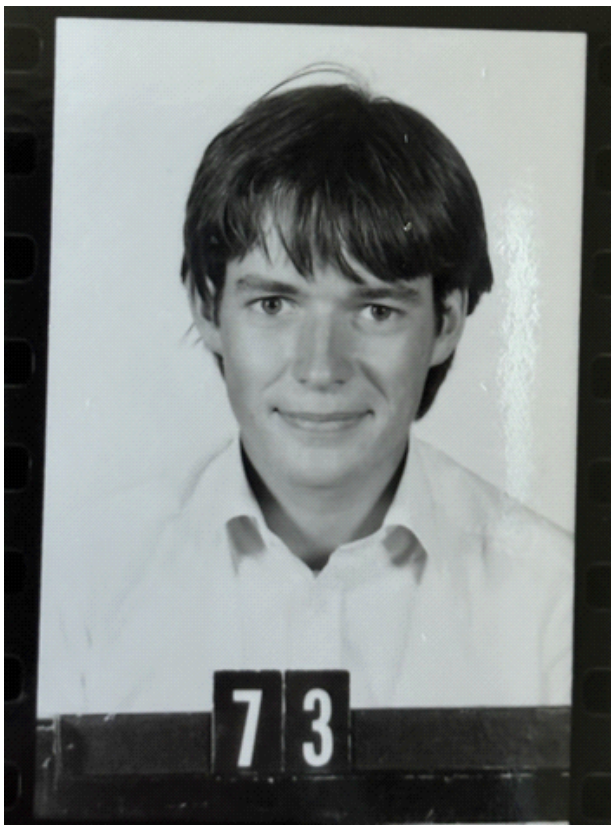


He started as a Toolmaker in the Tool Room. Later transferred to Aero Department to help in the Seaplane Tank. I have a photo (no date) of all the people in the team. He was quoted as Co-Author with D. C. MacPhile on Tech Note Aero 1713 (d/d November 1941) entitled:-(Model Investigation of the alighting of several landplane types on the sea. Tests on Hudson, Spitfire, Hurricane and Fulmar." He was a keen bowls player & photos show him a member of the team that won a silver cup. He died on 22 October 1948 (aged 58) following an operation.

Gerald (Gerry) John VOLLER

Brick No. 411 in Square 21





I was an Engineering Craft Apprentice in the 1984 intake year, following in my Father and Brother's footsteps. I trained as a craftsman and completed my apprenticeship becoming an Instrument Maker in 45 Dept. Some highlights as an apprentice for me: I worked on the first prototype bunker busting bomb for Tornado; I produced parts for the thruster of the ION engine that is still flying in outerspace today; and I got to fly in the research flight Wessex Heli as we mimicked being a bomb flying into attack a tank in Long Valley range. Wow, those were some days!

Promoted to Tech Grade 1, I moved to Space Dept design office in Q134 Bldg working on a project for the AIM9 (Sidewinder missile). In 1989, I moved into RAE planning dept with an office window that looked straight down the runway from behind the original control tower (best seat in the house every Airshow!). Working with John Turner and Laurie Jenkins, I learnt how to design Pert Gantt charts to plan the manufacture of research equipment programmes through the workshops; this was long hand before computers and I kept the largest one of 1000 lines long as a memento!

I moved to head up Pyestock planning dept in 1991/2 as a Professional Technological Officer and had great laughs working with Martin Prosser, Duncan Pride, Mike and many others (you know who you are!). We worked on many great technical projects from Submarine Periscope optics, scale model civil airline engine exhaust cowls, Eurofighter engine controls, to the out of this world tech of Stereolithography (the forerunner of 3D printing today). I once got a call from the stores, Mr Voller you have a crate here for your dept! OK lets go look - it turned out to be a complete Olympus engine spares set for the Concorde trials run 20 years earlier; it had been mothballed gathering dust!

Leaving Pyestock and the Research teams behind in 1995, taking a Higher Professional Tech role in MoD Procurement, initially in London St Christopher House then Bristol at Abbey

Wood, I was in one of the first teams to move into the brand new procurement centre at Filton. I was trained as an MoD Project Manager and ran projects procuring vehicles in the Light Logistic Vehicle team. I tested and bought vehicles ranging from Forklift trucks, Motor and Quad bikes, a semi-submersible tow tractor (yes you read that correctly!), and ultimately, I worked on Special Projects for Special people, let's say! What a fabulous period, I travelled to places in the world with these teams that you couldn't pay to go to, and ran vehicle trials and equipment tests, once tethered to the ramp of a Hercules aircraft as we came in on low pass for a drop trial, wow!

Sadly, falling very ill during this period, we made the decision that living in Bristol away from our core family and friends had to change, so I got a Senior Professional Tech PM role in DERA (set to become QinetiQ) back in Farnborough and we moved back to our home area in the year 2000. I then stayed with QinetiQ for 6 years working in the roles of Senior PM, Client Account Manager for Expeditionary Logistics and Land Sector Sales, before specialising in Bid Leadership. Since then, I have worked for many UK Prime Blue Chip and SME businesses providing professional bid delivery and leadership skills to win projects across Defence and Civil Industries. I currently work for myself delivering bidding skills and knowledge to companies that need an edge over their competition.

I am rightly proud of my training as an RAE Apprentice. I think many found 4 years hard going, particularly being clocked in at 07:45 every day and staying the course, but not me. For my part it instilled so many virtues and skills that I use in every day life. My skills on the tools are invaluable, and I love applying them, and the engineering know-how in my motor vehicle hobbies. As for the 07:45 starts, all I'd say is its unwise being late for a meeting with me! 😊

Gerry Voller
1 December 2025

Leslie Roy WARD

Brick No. 713 in Square 34



RAE - 1951 – 1960

Les as he was known then in 1951 was very pleased he had gained an apprenticeship with the RAE in Farnborough. Les was born in North Camp, not far from the RAE and was often to be found making models of aeroplanes or taking many photographs of them. He did a year and a half learning workshop experience, three and a half years learning office experience, including drawing office and instrumentation design and aircraft installation. Finally he started as a draughtsman doing design and installation of instrumentation and photographic airborne equipment. He had a 2 year break when he was called up for his National Service with The Royal Air Force stationed in Cyprus. When he had completed his call-up he returned to the RAE to continue his previous job of Draughtsman working in the Radio Department.

Roy, as I knew him, talked a lot about his time at the RAE, particularly as an apprentice, he had a thirst for knowledge and enjoyed very much the opportunity to learn so much about aircraft and the mechanics of them. Also, he always mentioned the camaraderie of the apprentices, who became friends and remained so over the years.

I believe it was Mr Armstrong who was in charge of the apprentices at that time and I know Roy had an enormous respect for him.

Sadly, Roy passed away in September 2012, I know he would have been very proud to be associated with the Cody Statue Project.

Peggy WARD

Brick No. 714 in Square 34



RAE – 1958 – 1963

I started work at the RAE in 1958 arriving on my BSA Dandy Moped, which in those days' people did not expect to see a girl riding. I was put to work in the Administration Building in a

Typing Pool. It was not long before they asked me to fill in for a single post vacant due to maternity leave. I went to Chemistry Department and enjoyed the responsibility and work of the job. I then was asked to work in Radio Department in the Typing Pool. Miss Haynes was the Supervisor and she was a brilliant teacher. She expected nothing but the best from all of us. Although we all moaned sometimes about having to retype work that was not up to standard, it was a great grounding that I very much appreciated in future jobs. We also had Miss Parslow as a Supervisor and Miss Joan Scammel, as she was then.

I met Roy Ward at the Farnborough Town Hall at the Saturday night Dance. Neither of us knew that we worked at the same place until we had known each other for about 4 weeks. We married in 1961 and I left in 1963 expecting out first child. I have some very happy memories of the RAE. The work was interesting and we all worked well together. It was also a really big treat for us all to be allowed to watch the Air Show.

On something completely different, I was not working at the RAE in September 1974 but I was driving down the Queens Avenue, on my way to work when 5 very smart Americans, 3 in uniform waived me down. I do not usually stop but thought there must be something wrong. Apparently they were due to meet King Hussain of Jordan at the Farnborough Air Show that morning and their car had run out of petrol. They told me their names which were Major Jim Sullivan, Major Noel Widdifield and their two wives and Major Maypole and asked me if I would take them to the Farnborough Airfield. I was also extremely surprised when they said they were the Bullet Men who had smashed the Atlantic flying record in their aeroplane the Blackbird, having seen it on the TV, I realised exactly who they were. I took them to the airfield and then took Major Mayple to get some petrol for their car and left him by the car and off I went to work. I was contacted by the Evening News concerning the story and I also made Punch which said:

Jim Sullivan sprang up and shot off for another day at Farnborough, divulging as he left that they intended to take a crack at the London-California record on the return trip home. It was too bad that we learnt later that his car had run out of petrol a mile short of the Hampshire airfield and the crew of the worlds fastest aircraft had to rely on a lift from a passing typist. That's the thing about Passing Through England, it gives you a certain perspective".

My 5 minutes of fame.

The WATERLOOVILLE PROBUS CLUB

Brick No. 703 in Square 3



Early in 2013 the FAST Cody Statue Project Leader gave a talk to Waterlooville Probus Club about the exploits of Mr. Cody. This talk was followed up with a visit to FAST by several members of the Club. The talk and visit inspired the club to donate a brick in support of the Cody Statue Fund.

Charlie WATERS

Brick No. 754 in Square 26



The following information has been taken from a copy of the RAE News of March 1983.

Charlie was a Centre Lathe Turner in 45 Department from 1950 until 1982.

He was involved in most, if not all, of research projects associated with the establishment, early missile and satellite development, showing a particular aptitude in satisfying the high precision grinding requirements connected with missile control systems.

He was also involved in developing spherical bearings for use with research into load processional rate gyros and in later years the grinding of components associated with laser gyros.

G. J. WEDGWOOD

Brick No. 658 in Square 19



Gordon died a couple of years ago and I was wondering if I could dedicate a brick to him as well, as his wife is dead and family are scattered. He worked, as far as I know, at the RAE all his life and had a lot to do with the museum.

Colin WEEDING

Brick No. 113 in Square 7



Born in Farnborough, and upon leaving school, Colin became an apprentice at the Inspectorate of Fighting Vehicles & Mechanical Equipment (IFVME) located just beyond the West Gate of the RAE. In 1967 when IFVME moved to Woolwich (Arsenal) he transferred to the RAE to complete his final year of apprenticeship and then worked in the Toolroom (39 Dept) on the manufacture and inspection of Wind Tunnel Models, some of which are currently held and displayed in the FAST Museum.

In 1973 he moved to Burghfield working on Nuclear Weapons Programmes before moving between various R&D Establishments, including Fort Halstead, Woolwich (Arsenal) MVEE etc. In 1992 he joined Pyestock being involved in the research, development and testing of both military and civil aero engines before retiring in 2002.

Denis WEEDING CEng MIMechE MRAeS

Brick No. 114 in Square 7



Born in Farnborough, Denis spent much of his early life, during the war years, climbing the trees around the airfield watching and sketching the aircraft flying in and out. Probably not strictly encouraged at that particular time!! He became an RAE Student Apprentice in 1946 working in many of its Departments under the overall supervision of "Digger" Armstrong. Whilst being involved in various projects he managed to gain a number of flights in various aircraft, including a Lancaster, Wellington and Beverley.

He was also, at this time, a member of the RAE Gliding Club. Up until recent years he had attended virtually all the Farnborough Airshows and was on the hill when the two jet engines from John Derry's De Havilland 110 crashed into it tragically killing and injuring hundreds of spectators.

Upon completion of his apprenticeship in 1952, National Service loomed & he joined the RAF serving on a number of bases both abroad & in the UK as well as MOD Headquarters & R&D Establishments. Having reached the rank of Squadron Leader he left the RAF in 1968 & joined British Airways at their Aero Engine Major Overhaul Division at Treforest near Cardiff, where he eventually became Managing Director before retiring in 1989. He was also Chairman of the RAeS Cardiff Branch for a number of years.

Henry (Bill) WEEDING

Brick No. 203 in Square 7



The son of a Boot Maker, Henry was born in Farnborough in October 1906 and received all his early schooling (1911-1923) in the town. He served his 5 year apprenticeship (1923-1928) with the Weybridge Motor Engineering Company Maintenance Depot of the Angl American Oil Company where he stayed for a further 4years as a Metal Turner. In 1932 Henry joined the Metropolitan Police Force, but was forced to retire in 1935 due to injuries sustained while on active duty. Henry then joined the RAE in July the same year as a Metal Turner in 33 Department and after 8 years was promoted to Inspector. During his 28 years in the Inspection Department he was involved in the investigation to British and German Gas Turbines/Rocket Motors, with his latter years being responsible for the inspection are both Wind Tunnel and Free Flight Models and associated equipments produced in both of the 39 Department Toolrooms within Aerodynamics Division. At the age of 65 years and after some 36 years service to the Establishment, Henry retired in October 1971. In November of the same year he was awarded the Imperial Service Medal. After some 15 years active retirement, Henry died in January 1986.

Michael WEEDING

Brick No. 115 in Square 7



Born in 1939, Michael received all his education up to the age of 16 years attending schools within the then village of Cove. In September 1955 Michael joined the RAE as a Craft Apprentice, where he served his 5 years in various departments until his final year when he decided to specialise in Tool and Model Making within 39 Department. On completion of his apprenticeship Michael stayed in the same department for a further 2 years, where he was involved with producing a number of aerofoil models for the testing in the High Speed Wind Tunnel. These including several of the prototype Concorde Wings. In 1962 Michael joined the Merchant Navy as an Engineer Officer where he served with P & O Orient Line. In 1965 he decided to rejoin the Civil Service and became an engineer with MOD (Air). During subsequent years Michael spent tours at RAF Hullavington and RAF St Athan where he was involved with the 3rd/4th Line Repair and Maintenance of RAF operational aircraft and then into an engineering AID inspection role post with MOD (PE) in London. In 1977 Michael then moved to RAF Brampton/Wyton where he was part of a team responsible for Logistic Support to RAF Operating Bases worldwide. Michael continued in this role for the remainder of his career until he retired as a Grade 7 in May 1999 at the age of 60 years.

Reg WEEDING

Brick No. 129 in Square 7



Reg was born in Farnborough and after leaving school joined the RAF. He spent most of his service life, including the war years, in South Africa working on aero engines & air frames. He joined the RAE in 1946 working in various roles on aircraft attached to the factory. In the 1960s he became Apprentice Supervisor in the Aircraft Apprentice Training Dept teaching both theory & practice in aero engine & air frame technology together with other associated aeronautical disciplines. Teenage apprentices found the prospects of working on real aircraft an exiting but daunting challenge & one where much fun & learning was to be had. Many of Reg's apprentices went on to successful careers both in the MOD & private industry including British Airways & Rolls Royce, some becoming experts in their own right. This gave Reg a sense of much pride & satisfaction taking a keen interest in their developing careers long after they had finished their 5yr apprenticeships. He is remembered very fondly by his ex-apprentices with one quoting “no matter how hard we tried we could never catch him out”. He retired in 1980.

Michael J WELLS

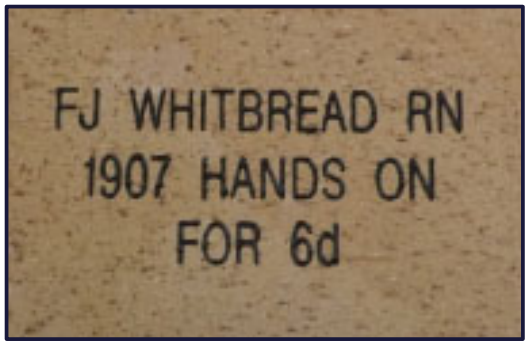
Brick No. 922 in Square 4



RAF posting to Institute of Aviation Medicine at the RAE from 1964 -1966. Upon arrival at the gates was told that there were no billets and had to go into digs on Alexandra Road! Discharged from the RAF in 1966, handed pass in, went to labour exchange and was sent back to RAE for an interview for a vacancy in 32 dept. Employment application successful but had to wait for 30 days for security clearance even though I had handed my RAF/RAE pass in on the morning of the interview! Worked in M hangar on aircraft ground equipment as a craftsman fitter and temporarily as an acting chargehand. Although I left the RAE to go and work in the heavy earthmoving plant industry in 1974, I had joined the RAE Gliding Club in 1969 and was granted a pass enabling me to continue gliding with the RAEGC at Farnborough until they moved to RAF Odiham in 1995. During my time with the gliding club I progressed from ab-initio trainee to solo and eventually Chief Flying Instructor. When the gliding club purchased an aircraft for towing the gliders I went to Blackbushe and got my pilots licence. I then joined the RAE Aero Club which enabled me to fly their aircraft as well as the gliders. It was a good life while it lasted.

Frederick James WHITBREAD

Brick No. 617 in Square 19



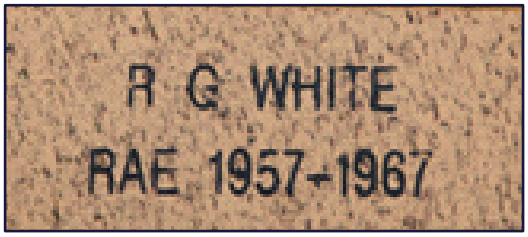
Frederick James Whitbread was my father, as a child he lived in Fleet, the eldest of six children. His father was a Postman in Fleet for many years. When Mr. Cody came to Farnborough to actually try to fly, he and his friends were absolutely fascinated. They spent their weekends and school holidays watching. They walked down the canal towpath to see. The land being very flat and Cody's plane's somewhat flimsy, the wind often hindered his efforts. He used to asked the

boys to hold the structure still, and pay them 6d for doing it. In those days that kind of money was riches to a child.

We as a family thought my father would be proud to buy a brick for him. Although a Naval man who fought in both wars, he never lost his interest in planes, even when Concorde brought our ceilings down!

Bob WHITE

Brick No. 56 in Square 24



RAE Service 1957- 1967

The 29th of April 1957 saw the enrolment of a group, including myself, of Assistants (Scientific) known as SAs. Those of us who came from distant places were installed in the Grange Hostel. The main collective activity of the group was study at the RAE technical college, initially on a six week induction course in the workshops; then we were drafted to Departments. College attendance continued by part-time day release and evening study working towards ONC and HNC Applied Physics and, hopefully, Grad Inst P. Eventually, after closure of the RAE college, staff students and equipment all transferred to the Farnborough College of Technology across the road .Throughout all of our studies we could have had no better leader and mentor than Larry Joyce, the head of Physics and an inspiration to us all.

Lifelong friendships formed in these early days of our careers. See the photograph in Chris Law's entry.

I went to the Parachute Section of the Mechanical Engineering Dept at Jersey Brow. My boss there was Ken James, a good Engineer and trainer, which I have appreciated ever since. My post included being a Flight Observer. The Parachute Section was involved in brake parachute and anti-spin parachute towing with Lincoln RF533, anti-spin parachute testing with Meteor VT150 (pilot only no observer) and supply dropping with Beverley XB259. These aircraft were in the Structures and Mechanical Engineering (SME) Flight.

Most of my flying was done in the Lincoln with Ken, initially in the radio operator's position and Ken in the rear turret as dispatcher. Later I became a dispatcher also. A calibrated strain gauged link was clipped into the glider towing attachment at the tail of the aircraft. On a run over the airfield at a chosen height and speed, the parachute was streamed from the link and a

drag versus time record obtained from the instrumentation in the radio operator's position. After an appropriate time as the speed of the aircraft decreased, the parachute was cut free by the dispatcher. In the early 1950s, John Farley, an RAE Apprentice at the time, was a Flight Observer in the Lincoln doing parachute towing trials. A good account of the streaming technique is given in his book *"A View From the Hover : My life in Aviation"*.

In a career progression, I moved to the Fuel Systems Section of Mech Eng, working on the spontaneous ignition of aircraft fuels and hydraulic fluids. This work was carried out in a shed, grandly denoted as building Q139B, behind Q153 building. Combustion experiments were carried out in heated vessels to obtain basic data, and leakage situations on to hot pipes were simulated. A series of RAE reports was published by John Macdonald, the originator of the research, and myself, on the work .

I left the RAE in 1967 to work as a Research Fellow on a three year Admiralty funded project supervised by Prof Brian Clarkson at the Institute of Sound and Vibration Research (ISVR), University of Southampton . After having written up successfully for a PhD degree, I applied for an advertised Lectureship and was appointed. In addition to continuing with the Admiralty sponsored work, my links with the RAE continued via research contracts from the Structures Department on acoustic fatigue of aircraft structures monitored by Bill Kirkby and Bob Mousley. I progressed both lines of research over the years at the ISVR. Also, I had a visiting RAE appointment for several years, arranged by Dai Webb.

From a Senior Lectureship I was appointed to the University chair of Vibration Studies, and was Director of the ISVR for seven years, stepping down in 1989 to get back more fully into research. However, in 1995, I moved from the ISVR to become head of the Department of Aeronautics and Astronautics at Southampton, until I retired in 1998.

In parallel with the above professional activities, I learned to fly in a Chipmunk aircraft with the Wessex Flying Group, which was based in the ISVR. I also decided to build an aeroplane. I bought a complete set of drawings of an originally commercially built, French, two seat light aircraft, designed by Yves Gardan. In a large garden shed and garage, I home built the aircraft, Gardan Minicab, G-BRGW. I flew as a Private Pilot for 47 years, the latter 27 years in "GW". My most privileged flight was in the Chipmunk forty years ago, when I took flying a gentleman who had been a pilot in the Royal Flying Corps in the First World War. It was a memorable day which I will never forget, with a quiet, modest man of historic aviation experience. I decided to retire from flying when my 81st birthday was approaching.

Throughout my life, I have been very grateful for the education, learning and experience gained whilst at the RAE and the friendships which formed there. All have been so important to me . Thank you RAE!

Prof Bob White FREng
26 February 2025



Lincoln RF533 - Acknowledgement Ken James



Bob White (c2000) standing next to the light aircraft “Gardan Minicab G-BRGW” that he built in a large garden shed and owned and flew for 27 of the 47 years that he held a private pilots licence.

Reginald WHITTON

Brick No. 294 in Square 30



The grand old man of the Royal Aircraft Establishment is 100 today (1985). Mr. Reginald Whitton, who is almost certainly the only survivor of the The First World War balloon factory in Farnborough, will celebrate quietly at his daughter's home in Highlands Road, Heath End, but will have a birthday party on Sunday. Mr. Whitton, who was born in Sheffield, came to Farnborough in 1913 to work as a fitter. "They were starting to make aeroplanes and Cody used to have flights. I heard about it and decided that was where I wanted to be.

But Cody, the legendary aviation pioneer, was soon to die. Recalls Mr. Whitton: "I was out in the yard one day when I saw him fall out of the sky."

During the First World War the men working at the factory were forced to become soldiers and Mr. Whitton was in uniform for his wedding at St. Mark's Church in Farnborough in 1916. He was widowed in 1939.

He was the first man to receive an Imperial Service Medal at the RAE – back in 1950 not long before he retired. "When I first went there I was earning 38 shillings (£1.90) a week. Even when I left it was only £8 a week – you couldn't get very fat on that, I can tell you."

He is the only founder member of the Peabody Road Social Club in Farnborough which was started in 1916 as a social club for the Amalgamated Society of Engineers. He still visits the club occasionally for a drink.

The conventional wisdom is that for a long life you have to keep busy once you retire. But when asked what he did on retirement Mr. Whitton chuckled: "Nothing!"
He added: "I've had a contented life. I never get into arguments – I just talk to people; they have opinions and I have mine and there it ends."

Cups of tea and the occasional beer are all very well for a long life but Mr. Whitton will not drink water, which he feels contains impurities.

At one time Mr. Whitton ran whist drives for the ex-RAE Association and in more recent times he practised wool embroidery – only giving up last winter through failing eyesight. He has also been a keen stamp collector since he was 15.

Since he was 90 Mr. Whitton has lived with his two daughters, Mrs. Sheila Ballett of Highlands Road and Mrs. Frances Torode who lives nearby in Upper Hale Road. He spends a month at a time with each. He has four grandchildren and three great-grandchildren.

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But Cody, the legendary aviation pioneer, was soon to die. Recalls Mr. Whitton: "I was out in the yard one day when I saw him fall out of the sky."

Patrick WILDING

Brick No. 380 in Square 13



I joined RAE Farnborough in 1951 as a Craft Apprentice, and finished my apprenticeship as a Research and Development Instrument Maker (Special).

During my time I was taught to use many types of machines and hand tools and was also involved in servicing very early Jet Planes (E Shed), many of them being prototypes.

I also witnessed several aircraft accidents, none fatal thankfully, with the Avro Vulcan overshooting the runway and losing its undercarriage, a Fairy Delta losing its undercarriage on landing, an Avro Lincoln propeller coming off whilst revving in front of B Shed, and a De Havilland Vampire crashing through the entry gates and bursting into flames at the black sheds end of the airfield, after failing to get airborne.

My apprenticeship was, in my view, the most thorough and interesting one I could have possibly wished for. It gave me great personal confidence and enabled me to gain valuable experience working in many countries overseas. This was all down to the excellent instructors and training I had throughout my apprenticeship. For this reason, I feel very sad that RAE Farnborough no longer exists.

As a 17 year old lad living in the Apprentices Hostel I made many friends and enjoyed the social side, especially the regular dances which were held at that time. I also joined the Group who started the first Farnborough Rag Week.

I now enjoy attending the Reunions and catching up with all the news of old friends

Paddy WILDMAN

Brick No. 285 in Square 39



When "Paddy" Wildman, Charge hand Cleaners/Messengers, retired from RAE on 29th March 1978, his workmates affectionately gave him a big wooden spoon inscribed "The Biggest Stirrer"! It was a tongue-in-cheek gift to a larger than life RAE "character", who had backed his staff 100% against the unseen forces of officialdom throughout his time at the Establishment.

To this day, that wooden spoon still has pride of place in our family, where he is remembered, as he deserved, with much affection and admiration. We were so happy to be given the opportunity to immortalise his memory by donating to the Cody Bricks.

Alfred C. J. WILLIAMS

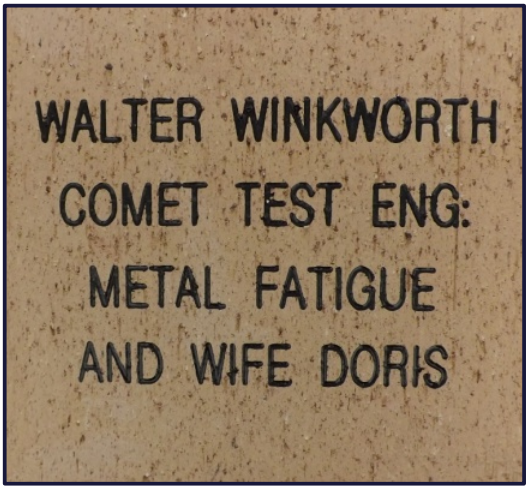
Brick No. 744 in Square 26



Alfred C J Williams was born in and grew up in Devonport, very much a Royal Naval town, where he was apprenticed in H M Dockyard. His father, also Alfred. had been in the Royal Naval and had been involved in the creation of the navy for the then new Commonwealth of Australia; he had died on his voyage home. On reaching age 18 Alfred C. J. Williams was conscripted into the RNAS being posted to Tregantle, Cornwall. He was transferred to the RAF on its formation and served at Felixstowe as a deckhand on the tenders serving the flying boats stationed there. He was demobbed in 1919. He returned to the Dockyard at Devonport and also served at Portsmouth and Trincomalee; on his retirement he was awarded the Imperial Service Order.

Walter WINKWORTH

Brick No. 619 in Square 19



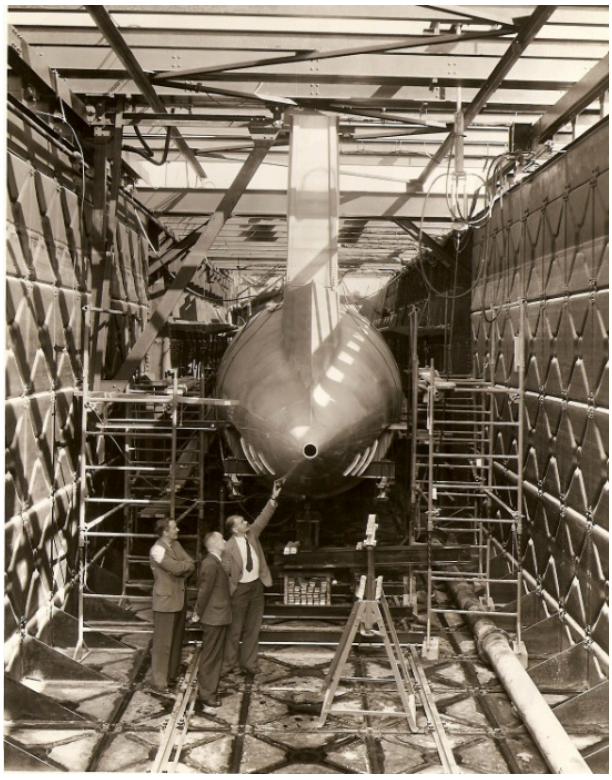
The above "Brick" celebrates a family involvement with the RAE.

Walter J. Winkworth came to Farnborough with wife Doris and identical twin sons, David and Walter, to work at the RAE in about 1950. At that time the 'Comet', the world and Britain's first jet airliner, began to suffer a series of crashes. This was found to be due to the, then, little understood problem of metal fatigue. Walter found himself doing pioneering work on this at the RAE using the water pressure tanks down by the old Queens Hotel end of the RAE airfield (the picture right shows Walter, centre, with two colleagues in the Comet test Tank). Sadly Walter died from a heart attack (again little understood problem at the time) at the young age of 49, at the RAE medical centre in 1962.

His wife Doris subsequently worked at the RAE in various administrative roles until her retirement. His twin sons, David and Walter, both followed their father into engineering, both beginning their careers at the RAE apprentice school, and at the nearby IFVME, which no longer exists.

The family lived for a time in Elmgrove Road, where at one time the railway track for the RAE power station train ran down one side of the road.

David and Walter Winkworth



The Comet Test Tank with Walter (centre) and two colleagues. A Comet fuselage was mounted in the tank and repeatedly pressurised to represent a series of flights

N. WINTERBOTTOM

Brick No. 1 in Square 8



S. WINTERBOTTOM

Brick No. 365 in Square 8



I left school in 1938, when I first began my search for work, I had been unsure as to what I should involve myself with. There was plenty of work available then in Stoke-on-Trent where I lived. My father found the advert in the local paper, it concerned an apprenticeship at the local airfield of a ground engineer. I applied and was given the job. There was a thriving Aero Club there at the time with about eight light aircraft there. It was a popular place and much flying was undertaken. I thoroughly enjoyed working there. When war began I then worked for the R.A.F. in civilian operated E.F.T.S. and P.F.U's. In the beginning there was mostly two seat light aircraft much of what Cody may have had in mind but for the unfortunate accident though by co-incidence I too suffered an aeroplane accident and was graded CIII when medically examined for call up.

After the war I joined Rolls Royce on early jet-engine assembly until I was offered a post at R.A.E. in aircraft dept. So you can see I have had much aircraft experience. I have great admiration for those early pioneers but I believe that many authors do not give Cody the credit he deserves. As a man of no specific training he can truly be called "genius", but one of those people with five per cent inspiration but of ninety per cent perspiration. Who knows what he may have done future but for that dreadful accident which ended his life.

I remained with R.A.F. to the end of my working life after a session with Engineering Training Dept., and finally in Admin as Admin Officer to the Commanding Officer of Flying Dept. Support of this project comes easily to those of us who served in the Aircraft Department and in a way followed in the footsteps of this forward thinking man. It is noticeable that at the mention of the first person to fly and control an aircraft then Samuel Cody is often ignored. Why is this so?

When I joined the workforce at the Royal Aircraft Establishment in 1946, I had no knowledge of Samuel Cody nor was there any talk of RAE and its early days. It is difficult to say where my interest in these matters was first raised, though I do recall a colleague talking about Nulli Secundus. He was one of the old school of the RAE workers but the opportunity to question

what he knew of those old days was missed. It would be true to say that the interest in the Cody really took off when FAST took over. As I had been involved in aircraft since my apprenticeship days from 1938, I joined in with that interest and also encouraged others with some success.

To talk of colleagues leads me to speak of some of the characters I have known at RAE. My first contact was in meeting with the head of Aircraft Department, Mr. Grosert, he appeared as a quiet man who was content to hide away in his office in the corner of A shed. After him was Frank Edney, his second-in-command and head of A and B sheds. He had appeared to be looking at you whilst seeing all about him. It was said he was one of the three foremen who was in the real fuselage cabin of the Tarrant Tabor when it attempted the fatal take-off. Then there was his deputy Dickie Bird who had the annoying habit of appearing at the wrong time. Dave Puttock was one of those heads of departments who was always welcome and who possessed a good sense of fun. Among the work force was Jack Hardy who was well built man and ran the oil store. He had the misfortune to suffer an accident to a leg from an early propeller swing aircraft. Who would ever forget that noisy man, leader and boss of the jacking up aircraft gang. He was a small man who had lots of bounce and in those early days this special gang did all the aircraft jacking. They did it by numbers and woe betide any hidden bystander who called out a number. There was only one boss and he was in charge and didn't you know it. Sadly I can see him in my mind but cannot recall his name. A more acceptable worker was Charlie Russell. An ex-sailor who was unintelligible in speech, this saving grace was an ability to splice rope or wire with ease. There were others who could be mentioned, but few give a general idea of the workforce I saw then.

Charlie WOOD

Brick No. 333 in Square 38

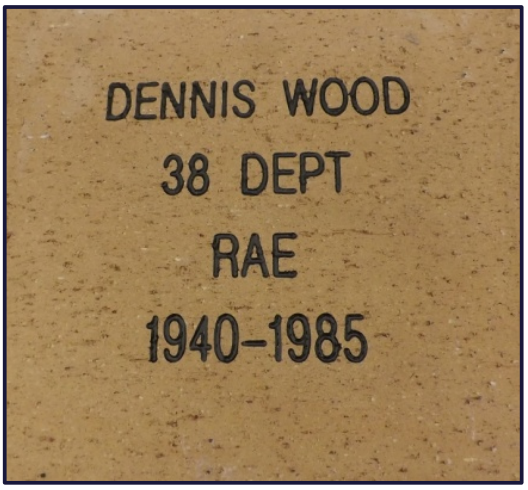


1914-1953

Originally from Essex he began working as a vertical miller at the Royal Aircraft Factory in 1914. He married in 1915 and moved into Pinehurst Cottages. A keen fisherman he was a member of the angling society and also enjoyed his allotment.

Dennis WOOD

Brick No. 332 in Square 38



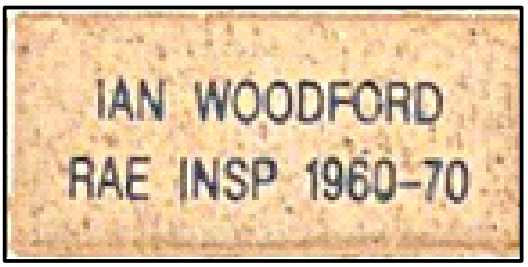
1940-1985

Arriving from Vickers Armstrong Aircraft Works Weybridge in 1940 under an 'essential work' directive. He joined 38Dept as an Improver/fitter, and worked on various projects including the Comet and Britannia fatigue test tanks, underwater experimental flotilla and automatic photographing film processors, Rad-Racs and Buccaneer project. He became a craft Apprentice Master in 1965 and received the ISM in 1980.

He was an active member of the RAE Sports and Social Club, member of the RAE Bowls team, the 37/38 Weir Cup Competition Team and also played in Civil Service competitions.

Ian WOODFORD

Brick No. 361 in Square 40



Ian was born in 1938 in East Cowes, Isle of Wight. After leaving Newport Grammar School, he became an engineering apprentice at the Saunders Roe aircraft factory in East Cowes, where he was known as *Spike* because of his love of 'The Goons'. During his time there, the Duke of Edinburgh visited the factory and it was Ian's claim to fame that he was photographed working on a machine with the Duke standing in the background. Ian said he dreaded being asked what

he was making as it was a bit for his motorbike! He worked for a time on the Princess Flying Boat. In fact, I recently found a small box and inside the label said Keel rivets for the Princess. The family bought him a model of the Princess, which was later donated to the FAST museum.

After finishing his apprenticeship, he was without a job for a while. So then in 1960, he and his mate John Swaffield applied for jobs at the RAE. They both had rooms at the Hostel in Hawley. Ian ended up working in the metrology department with his boss Bill Jenkins, Barry Love and Tony Newman. I gave the museum a photograph of Ian and co. (below) working in the metrology dept. On our wedding certificate the vicar wrote that Ian was a meteorologist!

Ian married in 1962 and bought a bungalow in Fleet. Whilst working in the metrology department, he once had an apprentice called Maurice Shakespeare. Ian left the RAE in 1970 to work for Data Recording Designs in Egham. He was there for 10 years until he was made redundant.

After a mundane engineering job (his words) in Fleet, he decided to work for himself doing property maintenance for friends and neighbours. Ian had always been careful with money, and believed in 'doing it yourself', so used these skills along with his engineering background to 'do it for others'. Ian always strove to do the best for his customers and, as his wasn't a money making scheme, he was never out of work, nor did he ever need to advertise. He worked on reputation, and by the time he retired had many loyal customers for whom he would go beyond the call of service if they found themselves in a crisis.

Ian simply couldn't bear to throw anything away that could 'come in handy one day', so his home, shed and back garden became a hoarder's paradise. Invariably it would pay off when Ian's eyes would light up with 'ooh, I've got one of those somewhere' and, despite the appearance of a needle in haystack scenario, he would invariably find it - an original re-cycling entrepreneur!!

Ian had many interests, mainly concerned with motorbikes, steam trains and boats; really anything to do with mechanical engineering. So many of the Woodford family holidays revolved around those.

During this time, Ian met Maurice Shakespeare again who moved nearly opposite in Burns Avenue, Church Crookham. We became firm family friends and it was through Maurice that Ian got involved with FAST. He was there at the beginning and was a regular volunteer and unfailing supporter, using his many practical skills in both building and engineering matters. He was involved with the full scale Cody BAA1 replica and contributed a vital part to the cockpit flying control mechanism. He also sponsored his own Cody commemorative brick, now displayed outside the museum for which this tribute is made.

Sadly Ian died in 2013 after a short illness bravely born. Our grandson Jake was in Farnborough recently and walked past the Museum and took great pleasure in showing his mates his Grampy's brick. They were very impressed!

Tricia Woodford (Ian's wife)
W ith Maurice Shakespeare
31st January 2026



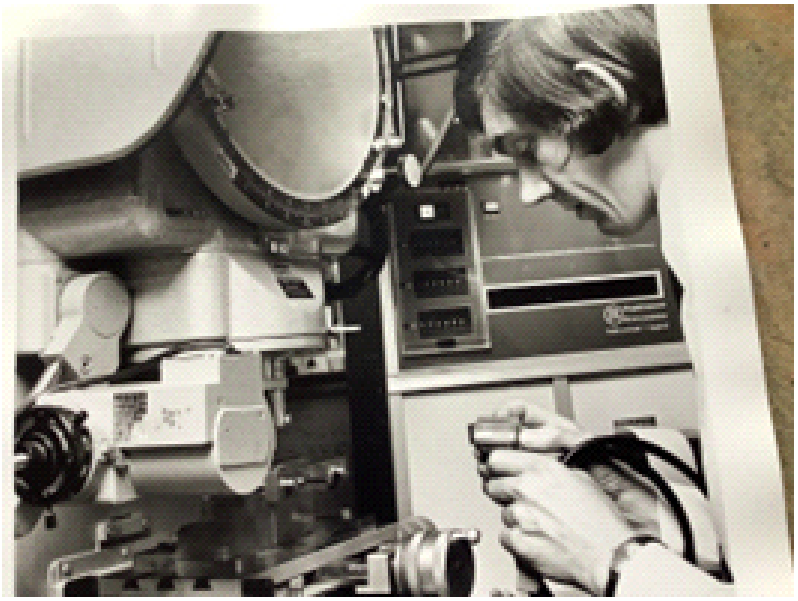
Ian with the Duke of Edinburgh.

Glad he didn't ask Ian what he was making!



Ian (centre standing) with Bill Jenkins and Tony Newman, and Barry Love seated.

c1970



Ian using one of the then latest inspection machines at RAE Farnborough.

Metrologist to the last!



Tricia & Ian Woodford
with 1936 Royal Enfield Model K,
976cc. With Wingy the cat.

The bike was originally owned by
Ian's father Charles Woodford.

Ian's son Mike Woodford is the
current custodian and third
generation keeper.

Photograph taken c1990
by Sandra Shakespeare.

Ian Woodford, FAST volunteer,
at the temporary FAST
Container site at QinetiQ
Farnborough.

February 2006





Tricia & Ian Woodford's 1936 Royal Enfield Model K,
976cc, with 1911 portable airship shed structure re-
erected thanks to Farnborough Air Sciences Trust
(FAST), at the same spot as the original installation.

The lattice structure had been used to build 2 RAE
Buildings which were demolished and the lattice
structures seen here rejoined and re-erected following
anti corrosion treatment.

Bill W. WRIGHT

Brick No. 791 in Square 2



I joined Chemistry Department in the RAE in 1952 straight from university. At that time conscription still applied and I had three options - join the services and abandon chemistry for two years, go to AERE at Harwell to prepare a radioactive source of xenon or join RAE to work on polymers. As I had just completed three years research in the polymer field it was a sitting duck which one I would take. I fully expected after two or three years to be off to academia or industry, but in the event retired from RAE 36 years later. At that time RAE was the largest single establishment in Western Europe solely devoted to R & D, with the emphasis very much on the R. As a consequence by the time I retired I had published over 100 papers in the open literature and this had led to the award of a D.Sc, promotion to individual merit SPSO and appointment as a visiting professor at both Brunel and Surrey universities. I was a member of the Materials team at the atomic trials at Maralinga in Australia and so have the dubious privilege of seeing four atomic bombs denotated. I was also a member of the Materials Panel on The Technical Co-operation Programme a joint research venture between America, Australia, Canada and the UK And have two Achievement Award certificates to prove it.

Jennifer YARNEY & Maureen PAYNE

Brick No. 263 in Square 14



I joined RAE in 1969 aged 25, and was sent to Wages (horror!) Q1 Building. My fellow workers were Maureen Payne and Sylvia Johnstone. Maureen and I became somewhat infamous for “larking about”, but both of us, and Sylvia went on to forge successful careers at RAE until retirement. Most importantly we became lifelong friends. Sadly Maureen and Sylvia are no longer with us

Donating to “The Brick” gives me the opportunity to permanently place on record unforgettable friendships made in a remarkable place

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George & Dora YATES

Brick No. 622 in Square 27



The Yates family over the years all worked at the R.A.E. George and Dora Yates and their Son and Daughter-in-Law, Aunts, Uncles all spent many happy years in various departments of the

Establishment. Michael was a Craft Auxiliary A in Aircraft Department, my wife Heather drove the Bun Wagon from Main Canteen, delivering the fresh buns and cakes to all areas come wind, wind and snow, “The buns must get through” was the cry! Various Aunts worked in the Pay Office, Uncle Bill also in Aircraft Department. All good Farnborough people doing their bit for Aviation, not to mention providing food and shelter for the ever increasing families.

Mum worked at I.A.M., The Institute of Aviation Medicine for 15 years until her Retirement in 1986. Her proud boast to all our family and friends was that she daily swept and mopped 7 miles of corridors. Now, sadly we can no longer verify this, but the family holds dear vision of Mum and her group of cleaning ladies on hands and knees, with a 12 foot tape, measuring them. Who said we didn’t do important and vital scientific work in this country.

Dad joined the R.A.E. in December 1953. He was initially employed in 7 Department as an Electrical Motor Attendant and was re-graded to Turbine Attended in 1954 in the High Altitude Test Plant. This work involved him in tests for the Comet and Britannia aircraft. He then transferred to the Blower Tunnel at Ball Hill and was attached to a section carrying out Rocket Recovery Trials. In 1962 he was re-graded to Test Plant Operator and transferred to the High Speed Wind Tunnel, where he became involved in tests for the many new aircraft that period, such as the early Vertical Take Off and Landing Models, the VC10 and later the Jaguar and Harrier.

In 1967 he transferred to 39 Department as a trainee Spring maker having been re-graded to Experimental Worker 111; in the same year he was promoted to Craftsman 11, and then to 1972 to Craftsman 1. In 1975 he was made an Apprentice Master where he continued to pass on his skills to youngsters and his retirement in 1986. He received his Imperial Service Medal after 33 years of service.

And finally despite the R.A.E.’s reputation and importance in the world of Aviation advancements and Science. An abiding memory for me and those of a certain age, of which I include myself. Is that the local bus drivers who, when stopping outside the old Main Gate of the R.A.E., Would call out “Anybody for sleepy valley” - happy days!