

NEWSLETTER NUMBER 3 - SUMMER 2003

EDITORIAL

Our Association continues to grow in membership - now close to 300 - the meetings have been exciting and well supported and we are beginning to be known nationally. Your Committee is delighted with the continuing reponse from past and present employees which proves that the Association is satisfying a real need.

At the Committee meeting on March 12th a Chairman was formally elected; Ambrose Barber. As an ex-RAF National Service Vampire pilot Ambrose started at HAL in Flight Development at Dunsfold before moving into the the commercial area and eventually becoming General Manager at Hamble. His wide experience and enthusiasm for 'Hawkers' will be a great asset to the Association. Ambrose is supported by Barry Pegram as Secretary and Membership Secretary, Mike Hoskins as Treasurer, Percy Collino as Meetings Organiser, Chris Farara as Newsletter Editor and Richard Cannon as Webmaster. Committee members 'without portfolio' are Ralph Hooper, Gordon Jefferson, Wilf Firth and Harry Fraser-Mitchell.

As you will see below, several Members have sent in contributions; this is what brings the *Newsletter* alive. Also, use it to tell the Committee, for instance, what you would like in the way of meetings and events and when and how often you would like them held. You can also volunteer! Letters to the Editor, please.

Write to: The Editor, Chris Farara, at 24 Guildown Road, Guildford, Surrey, GU2 4EN tel. 01483 825955; e-mail <chrisfarara@ntlworld.com>

PROGRAMME FOR 2003. Meetings are at 2.00 pm Wednesdays at Hawker Leisure, the old Kingston Sports & Social Club, unless stated otherwise:

9th Jul, 13th Aug, 10th Dec Video and social gatherings at YMCA Hawker Leisure.

3rd Sept. Visit BAES Farnborough: talk "BAe Heritage" by Ron Hedges, buffet & Tour. Meet in the Park Centre at 6.30 pm; car park behind.

8th Oct Talk: "The Typhoon" by David Ince, Typhoon pilot.
12th Nov (new date) Talk: "A few words from a salesman" by John Crampton.

'HAWKER'; A GREAT PLACE TO WORK.

That was the title of John Glasscock's informal talk to over sixty Members on March 12th. Sitting at a table, because he had "problems with the undercarriage", he entertained his attentive audience with reminiscences about his time at Kingston.

From the RAF JLG joined Hawker Aircraft Ltd in 1953 as a Secretarial Assistant working for Eric Rubython. Neville Spriggs was then General Manager with John Lidbury - Company Secretary, Sir Sydney Camm - Chief Designer, EH Jefferson - Works Director. HAL's bulk profits went to the Hawker Siddeley Group (run by Tom Sopwith, Frank Spriggs, Roy Dobson and Arnold Hall) but some funds were 'retained' for R&D. JLG's training programme took him round the Departments. In Design he worked with Roy Chaplin,

Stanley Hollyhock, Frank Cross, Stan Whale, Harold Tuffen and brushed up against Sir Sydney who on one occasion threw him out of the DO! Contracts was under Frank Sherras who ran two books; one for HAL eyes, the other for the Ministry. In Experimental JLG was looked after by Donald Stranks, a bit of an eccentric who used to carry an Aldis Lamp to signal people he wanted to see. Dunsfold Experimental was headed by Bill Turner, a rather absent minded academic individual who dropped JLG out on the airfield saying he would pick him up, only to forget for two hours. Sales and Publicity was a one-man-band; George Anderson, and Production was taken care of by Frank Locke, Harry Viney and Wally Rayner who was sitting in the front row enjoying every minute of the talk.

The premises were Canbury Park Road, Richmond Road, Teddington and Langley (then a raw material store) and Dunsfold with Works Managers Bill Clark, then Reg Hayward followed by John Yoxall. EH Jefferson organised Hawkers' Blackpool factory which produced 30 Hunters a month. The Hunter was very profitable and many aircraft were refurbished and sold again. The new office block was criticised in the press as looking like a mausoleum and Lidbury was castigated by HSG for wasting money. However, those who worked in it had a quite different opinion.

The P.1121 came to nothing, after Company funding. The P.1127 led to the wonderful Harrier but this was not as successful commercially as had been hoped. JLG said Ralph Hooper, in the audience, responsible for the design and development of the type, had been given too little credit...and John Fozard a bit too much! The P.1182 Hawk had been under Ralph's leadership as Chief Engineer, with Gordon Hodson, also in the audience, doing more than most for the project, even developing the requirement with the RAF. The Chief Designer had been Gordon Hudson who, sadly, was not well enough to come to the meeting. The fixed price (a 'first' in the UK aircraft industry) contract, negotiated by Reg Gearing, dated 21.3.72, for the "design, development, manufacture and support of 175 1182AJ" aircraft was worth £6,567,500. It broke even but the profit came from another 'first', the Reliability and Maintainability bonus. JLG recalled the many overseas sales, including the Finnish 100% offset deal (yet another 'first') and the great achievement of the T-45 sale to the US Navy against strong US and European competition.

JLG left Kingston in 1977, having been General Manager since 1965, with Colin Chandler his successor. "After that the place had run down: mergers, nationalisation, privatisation etc and all that's left now is Hawker Leisure!"

JLG finished by saying why 'Hawkers' had been "a good place to work" - it was a successful company with outstanding products, outstanding people and a great heritage. Its strength was in the middle management; it was small enough to adopt a paternalistic approach. Perhaps it was a bit parochial and there were inter-departmental rivalries - but these added to the enjoyable cut and thrust. 'Hawkers' worked as a team and always presented a united front.

"We saw the best of things. Yes, a good place to work - warts and all!" was John's closing remark.

HIGH SOCIETY

Have you seen the May edition of Aeroplane Monthly? The Association got a full 2

page write up by Sections Editor Nick Stroud, son of Member Mike. Headed "High Society" it included a potted history of 'Hawkers' and full details of the Association and its aims together with our logo and a vintage black and white photograph of the ever-beautiful Hunter, in this case WT557.

BAD CHAIR DAYS

The following TV review appeared in *The Guardian*, for Monday March 17, 2003, whom we thank for permission to reproduce it.

"The 60s have been blamed for all sorts of things, but one crime which continues to cause trouble in the world of television is the wretched elevation of designers to some kind of priest-like status. Designing the Decades (BBC2 Saturday) spoke reverentially of Robin Day - not the one with the spotty bow tie, but the one who designed the plastic stacking chair. For reasons that have always escaped me, we are supposed to regard this mundane item with awe, and there were some unappetising design experts with tumbling locks to tell us just why. But it's a chair, for God's sake - a moulded polypropylene stacking chair, such as one might sit on in a local housing office. Lower than that it does not get.

Only marginally more convincing was the case for Sussex University being an architectural masterpiece, or Tupperware being an agent for social change. Otherwise, Designing the Decade was an agreeable stroll through territory made familiar through a hundred similar documentaries. It was all minis and Minis, Mary Quant and Alex Issigonis and dozens of their admirers. Quant closed the circle rather neatly by saying that the Mini was rather like a handbag, and that during the 60s she practically lived in hers.

The only design that really looked exciting in the whole show, perhaps because it hasn't been deadened by pop documentaries, was the Harrier Jump Jet, the brainchild of engineer Ralph Hooper, who's much more deserving of adulation than a man who made bum-numbing plastic seating."

Hooray to that!

DAMBUSTERS

The *Channel 4* programme celebrating the dam raids featured Dunsfold's Chief Inspector, Ray Grayston, who was flight engineer on Les Knight's Lancaster which breached the Eder dam. Ray's full story is told in the April edition of *Saga Magazine*.

HARRIER SKI-JUMP TRIALS

Many Members will remember the dramatic demonstrations of Harrier ski-jump launches given at the 1978 Farnborough and 1979 Paris air shows. Not so well known is the story of the development trials which preceded the public debut. On the 19th March Dick Poole gave a talk to the RAeS Weybridge Branch entitled "Harrier Ski-Jump Trials, a Flight Test Engineer View." Dick, at the time a senior flight test engineer at Dunsfold, was in charge of these trials so he was well placed to give the inside story.

The talk covered the Ski-Jump origins by Lt Cdr Doug Taylor, its development by Hawker Siddeley Aviation at Kingston, the design of the test ramp, also by HSAK, the performance prediction and vital safety planning involved, the test methods and instrumentation as well as the trials themselves and the outcome. Initially set to a 6 degree exit angle, the adjustable ramp, installed at RAE Bedford, was progressively adjusted 3

until the maximum exit angle of 20 degrees was successfully flight tested. This was real pioneering work, carried out in 1977-78, requiring constant monitoring of end speeds, launch trajectories and undercarriage behaviour as well as aircraft handling qualities, and control and performance margins. In the event the Ski-Jump and the Harrier proved to be perfectly matched with launches being made with the stick 'fixed' longitudinally from brakes-off to wingborne flight.

The performance gains when compared with a flat deck launch were large: either a 30% increase in load from a 600 ft deck run or a 400 ft reduction in deck run for the same load. Launch safety was also greatly enhanced by the upward trajectory giving much more time for escape in the event of, say, engine failure. Ski-Jumps are installed in Britain's carriers as well as those of India, Spain, Italy and Thailand, all Harrier operators, of course.

Attending the lecture were other prominent members of HSA Kingston's Ski-Jump team including performance engineers Trevor Jordan and Ken Causer and Chief Test Pilot John Farley.

KINGSTON'S FIGHTERS - THE JET AGE.

At the Association meeting on 9th April, Ralph Hooper, retired Chief Engineer and Technical Director, told the story of Kingston's jet aircraft from the P.1011 project of 1941, an adaptation of the twin Sabre powered P.1005 bomber with Power Jets engines, to the Harrier II and Hawk of today. He covered not only flying prototypes and production aircraft but also significant unbuilt project studies.

Ralph enlivened his witty talk by linking the aircraft with the progress of his career at Kingston and his recollections of the, sometimes eccentric, 'Hawker' characters he worked with. He joined Hawkers as a draughtsman in the Experimental DO in 1948, after a successful interview with Sydney Camm, just as the Sea Hawk prototype first flew. Ralph outlined Kingston jet progress up to that point but from then on he spoke in detail from first hand knowledge.

Hawkers was late on the jet scene although it is rumoured that Camm was asked by Sopwith to take on Britain's first jet airframe but refused. Ralph's experience of Camm lends credence to this for Camm did not like research aircraft and was sceptical of new things. In addition, the low thrust of the early Whittle engines could not compete with that available from the powerful piston engines favoured by Camm. Also the Hawker design team was very busy before and throughout the war and a new project would have delayed the valuable Tempest for a product that would probably miss the war anyway! So, the job went to Hawker Siddeley's under-employed Gloster design team led by George Carter (an ex-Kingston man).

From the EDO, where he worked on the first Hawker swept wing aircraft, the P.1052, the P.1067 Hunter and its 50 degree sweep development, the P.1083 (cancelled), Ralph moved to the Project Office in 1952. Here there was work on supersonic research types, the doomed P.1108 naval strike aircraft and a series of Mach 2 fighters from P.1103 to P.1121. The latter went ahead on company funding only to be abandoned when Defence Minister Duncan Sandys made it clear that manned fighters were a thing of the past! However, the P.1121 design was stretched to meet OR 339 as the P.1125 and P.1129, but a Vickers and English Electric design was selected; the ill fated TSR 2. It was at this juncture with a 4 need for design work at Kingston that Bristol Engine's brochure, No. PS 17 for a 10,000 lb thrust swivelling nozzle engine, found its way to Ralph's desk. The key to V/STOL had arrived.

Working closely with Stanley Hooker's team, particularly project engineer Gordon Lewis, Ralph, through a number of stages, single-handedly devised the P.1127 in 1957 and led the development of it into the Kestrel and the P.1150 and P.1154 supersonic V/STOL project designs. The latter won the NATO NBMR 3 competition and was adopted for the RAF and RN (who withdrew), only to be cancelled by the Wilson Labour government. Hawkers did, of course, get a consolation prize - a contract to develop the Kestrel for the RAF as the Harrier, which, as Chief Engineer, was Ralph's responsibility.

The P.1179 of the late '60s investigated whether a supersonic V/STOL aircraft could meet the requirement which eventually led to Tornado. It could not, so work started on the P.1184 (1970-74) advanced V/STOL aircraft. No interest was shown in the UK although it led to a joint project with McDonnell, the AV-16, and historically to the AV-8B because of US enthusiasm.

Also Ralph's responsibility was the P.1182 project for a new RAF jet trainer. This started as a Kingston initiative before any official requirement had been formulated. Three years' detailed project work had been done before AST 397 was issued which was satisfied by the HS 1182AJ (A for Adour, J for July - an indication as to how often variants emerged from the project team!) in 1971. Named Hawk it was a huge success, both technically and commercially, combining high performance with low operating costs. Sales to date are 836.

Meanwhile project work continued. The P.1201 of the mid '70s, for example, was a simple fighter with a variable incidence wing to aid clean air flow into the intake when pulling high g. Supersonic V/STOL was studied intensely from the late '70s to the mid '80s in a series of designs with the aim of minimising the amount of airframe exposed to the damaging effects of the nozzle exhausts. The P.1212 was a delta with a cut back trailing edge and booms carrying fins, undercarriage and armament; the P.1214 added forward sweep and the P.1216 had outboard tailplanes on the booms. Much rig and model testing was carried out on the P.1216 and a full scale mock-up was inspected by Prime Minister Margaret Thatcher, but sadly this promising design was not supported by BAe in case it upset the Eurofighter negotiations. Ralph remembered that he had been warned, correctly, by Margaret Thatcher that tip mounting missiles on swept wings was frought with difficulties!

Ralph concluded by noting that over 46,000 Kingston designed aircraft have been built including some 10,000 by other UK factories and 2,000 built abroad. A record to be proud of.

It was a real privelege for Members to hear this fascinating story first hand from the man to whom we all owe so much.

HOOKER'S ENGINES IN HAWKERS' AEROPLANES

Ralph Hooper, busy man, was invited to give the 2003 Sir Stanley Hooker Memorial Address to the Bristol Branch of the Rolls-Royce Heritage Trust on March 24th. An audience of some 200, including the President and many illustrious names from R-R, heard Ralph's talk, "Hooker's Engines in Hawkers' Aeroplanes". Sir Stanley, or 'SGH' as he was known 5

at R-R where it was the custom to refer to people by their initials, started at R-R, moved to Bristol Engines and after the R-R/Bristol amalgamation returned to Derby. He therefor influenced and led both Derby and Bristol engine developments.

Ralph covered all the Hawker aircraft with engines which SGH had a hand in or which he inherited. The Hurricane Mk II with the Merlin XX was equipped with an SGH designed supercharger but the first Hawker type to be powered by an SGH engine was the P.1040, which became the Sea Hawk, with his Nene. The swept wing developments, the P.1052 and P.1081, also flew with the Nene although the latter should have had the more powerful Tay. The Hunter was, of course, powered by the Avon; not an SGH design but one with which he was deeply involved during development. The Conway was considered for the P.1121 Mach 2 fighter but the Olympus was preferred and in any case the aircraft was never completed.

The most important part of the talk covered the origins of the Pegasus in the P.1127 at the time when SGH had moved to Bristol. Ralph was involved from the start as Camm's project designer, attending meetings together with Camm, with SGH and his team and with the American Mutual Weapons Defence Programme (MWDP) team in Paris who were sponsoring the BE 53. Ralph's opposite number at Bristol was Gordon Lewis, SGH's project designer, who attended the lecture together with John Dale, the Pegasus development engineer.

Ralph's supersonic development of the P.1127, the P.1150, led to the P.1154 which, powered by SGH's 33,000 lb thrust BS 100, won the NATO NBMR 3 competition. However, it was the subsonic P.1127 (RAF) Harrier with the production Pegasus 6, 10 and 11 that was ordered for the RAF. Kingston's advanced supersonic V/STOL studies in the '70s, culminated in the P.1216 using the RB 422 of 44,000 lb thrust. However it was BAe policy that "supersonic V/STOL was made to mark time to give EAP/EFA a clear run".

Ralph closed by noting that SGH's people had increased the thrust of the Pegasus by over 2 1/2 times compared to the engine that John Dale first ran in 1959. The lecture, which was enthusiastically received, had been enlivened with many personal reminiscences, observations and comments on the people involved in this story of British engineering achievement.

TANGMERE MILITARY AVIATION MUSEUM

On sunny 14th May nearly 70 Members converged on the Museum to meet Neville Duke and see the aeroplane he flew to a World Speed Record 50 years ago. The red Hunter prototype, WB188, modified with a pointed nose, a raked windscreen fairing and a reheated Avon to become the Mk 3, was flown from Tangmere to the course off the south coast.

The Curator introduced the Museum and Mike Stroud pointed out Hawker connections with Tangmere, many of which were illustrated by exhibits. Notable amongst those present, in addition to Neville, who signed Members' books and photographs all afternoon, were Vivian Stanbury, Head of the Project Office in the early days of the jets, test pilots John Farley and David Lockspeiser, Roger Dabbs, Wally Rayner and the still irrepressible Jan White. Members had to travel far for the visit but it was well worth it to spend a couple of happy hours with old colleagues amongst beautiful aeroplanes - the Association's first visit was clearly a great success.

READERS WRITE

From Bill King who recalls two manifestations of the old rivalry between Kingston and Warton.

At the beginning of the Falklands campaign a newspaper article was pinned to one of the shop notice boards in the Kingston factory. It reported that a RN Sea Harrier had shot down an Argentine Air Force Canberra. Beneath it someone had written "What about bloody Warton now!"

Equally cruelly, when somewhat later the fate of Kingston was all but sealed, I saw a cartoon on the Warton Contracts Office notice board. It showed a pristine Lightning pinning a very crumpled Harrier to the runway. The caption was "Now jump, you little bugger."

From Eric Hayward who recounts a story told to him by Bert Hayward, who swore it was true.

The event took place at Langley when 'George 'Bulman was flight testing Harts and Hinds. One day a new young apprentice joined the Company, and as all boys do at that age, he longed for a ride in an aircraft. The Flight Shed crew thought they would have some fun at his expense so they told him that they had arranged with Mr Bulman that he could go in the rear cockpit.

The problem was, they explained, that the apprentice was rather small and skinny so he would have to be ballasted to keep the aircraft in trim. They found him a pair of flying overalls about four sizes too big and fitted him into them, rolling up the trouser legs and arms so his hands and feet poked out. They then filled all the pockets with bolts and nuts and ballast weights until he could barely walk. As Mr Bulman came out of the tower, some distance away, they said "Off you go", and the whole Flight Shed turned out for the laugh as the poor little figure staggered across the airfield in his oversize overalls with the ballast weighing him down. He never reached the aircraft, which was just as well, as Mr. Bulman had not been told anyway, and the apprentice had been the victim of the sort of sport that newcomers had to contend with in those days!

The name of the little apprentice? John Gale, sadly no longer with us, who stayed with the Company for many years and became Product Support Manager.

Editor's note. John's daughter, Diana Dean, for many years secretary to Fred Sutton and later heads of flight development, is a new Member.

From Ralph Kuhn who tells us that a memorial to Sir Frank Whittle is to be erected on the Ively roundabout near the entrance to the Farnborough airfield entrance.

The memorial, the idea of Roy Fowkes, an old friend of Sir Frank, will be in the form of a full scale model of the Gloster E28/39, the first aircraft to be powered by Whittle's engine and Britain's first jet aircraft. In addition to the fact that the Rolls-Royce Nene that powered Hawkers' early jets was a direct descendant of the Whittle engine in the E28-39, another Hawker connection is that the aircraft itself was designed by George Carter who was chief designer at Kingston when Camm joined the company.

From Johnnie Johnson who adds to Dave Fowler's account of the HMS Blake incident.

With the brakes applied and the nose-wheel swinging, the wet deck caused the aircraft to skitter across the tiny 'flight deck' and it would assuredly have gone over the side but for that quick thinking sailor. Hugh (Merewether) appeared quite unmoved!

MEMBERSHIP LIST

Names only are given for legal reasons. If you wish to write to a Member put your letter in a plain stamped envelope and send it to the Editor who will forward it for you. If you know any 'Hawker' people who are not members, please tell them about the Association. Especially welcome are Production and Commercial people as they are under-represented at present.

A: Ken Alexander, Peter Alexander, John Allen, Terry Ansty, Steve Apted, John Arthur, Alan Auld, Bryan Austin. B: Ambrose Barber, Ray Barber, Derek Barden, Peter Barker, Geoff Barratt, Ken Batstone, Dennis Baxter, Anne Beer, Keith Bollands, Paul Boon, Cliff Bore, Steve Bott, Bob Bounden, Alan Boyd, Roy Braybrook, Laurie Bridges, Ian Brine, Doug Britton, Peter Brown, Reg Burrell, Ron Bryan, Roy Budgen, George Bunt. C: Bert Callan, Richard Cannon, Maurice Carlile, Chris Carter, Ken Causer, John Chacksfield, Colin Chandler, Keith Chapman, Reg Chester, Gerry Clapp, John Cockerill, Bob Coles, Percy Collino, Brian Coombes, David Cooper, Paul Cope, Nick Cox, Eric Crabbe, Ian Craig, Shirley Craig, John Crampton, Russ Culley, RG Curtis. D: Roger Dabbs, Clive Dalley, Andy Dalton, John Davie, Ken Davies, Philippa Davies, Trevor Davies, Diana Dean, Norman Deviell, Lambert Dopping-Heppenstal, Jack Dowson, Dick Duffel, Jean Duffel, Peter Drye, Neville Duke, Chris Dunhill, Mike Dyke. E: John Eacott, Andy Edwards, Dave Edwards, Frank Ewen. F: Ian Falconer, Mike Fantham, Chris Farara, John Farley, John Farrow, Geoff Fieldus, Wilf Firth, Ann Fletcher, Richard Fletcher, Colin Flint, Dave Fowler, Mike Frain, Harry Fraser-Mitchell, Geoff French, Mike French, Heinz Frick. G: Roy Gaff, John Gardner, Sandie Gear, Mark Gerrard, Tony Gibbs, Maurice Gilson, John Glasscock, Roy Goodheart, Eric Goose, John Gough, Andy Green, John Green, James Griffin, Barry Grimsey.

H: Douglas Halloway, Clive Handy, Dawn Harris, Brian Harvie, David Hastie, Eric Haywood, Bob Head, Frederick Hewitt, Merlin Hibbs, Richard Hickey, Peter Hickman, Reg Hippolite, Keith Hobbs, Chris Hodson, Gordon Hodson, Derek Holden, Doc Holliday, Ralph Hooper, Linda Hopkins, Paul Hopkins, Mike Hoskins, Dawn Howes, Terry Howes, Simon Howison, Gordon Hudson. I: Pete I'Anson, John Ieronymides, Maive Impey, Brian Indge. J: John Janes, Gordon Jefferson, David Jelley, John Johnson, Johnnie Johnson, Ian Jordan, Trevor Jordan, Alf Justin. K: Brian Kent, Dennis Ketcher, Bill King, Dave King, Charles Kirk, Ralph Kuhn. L: Barry Laight, Mike Laker, Charles Lamb, Richard Lane, George Latham, Pam Lawrence, Ron Leader, Geoff Lee, Mark Lewis, Vernon Lidstone, Andrew Lloyd, David Lockspeiser, Norman Long, Gordon Lorrimer. M: Albert Magee, Al Mahoon, Mick Mansell, John Marsh, Bill Marshall, Bob Martin, Dennis Mason, June McKeon, Ronald Mears, Mike Mendoza, Jim Middleton, Kit Milford, Jack Mills, Brian Monk, Pauline Moore, Nicholas Morland, Pete Munday. N: Martin Nash, Anthea Newman. O: Roger O'Brien-Hill, Robin Owen. P: Les Palmer, John Parker, John Partridge, Barry Pegram, Ted Pincombe, Dick Poole, Don Pratt, Dave Priddy. Q: John Quinn. R: Frank Rainsborough, Colin Raisey, Brian Ralton, Paul Rash, Diane Raymond, Wally Rayner, David Rees, Francis Rhodes, Geoff Richards, Bill Richardson, Chris Roberts, Malcolm Roscoe-Pond. S: Helen Sadler, Ray Searle, Arthur Sharp, Bill Sherwood, Jack Simmonds, Sadie Simmonds, Duncan Simpson, Derek Sims, Gerry Sims, Don Smith, Harold Smith, Karl Smith, Pete Smith, Selwyn Smith, Roy Sparrow, Peter Spragg, Cora Stanbury, Vivian Stanbury, John Strange, Mike Stroud, Christine Strudwick, Tony Strudwick, Bill Swinchatt. T: David Taylor, Stuart Taylor, Graham Tomlinson, Rod Tribick, Ron Trowell, Frank Tuck, Bert Turner. U: John Underhill.V: Herbert Valk. W: Brian Walden, Terry Walker, David Ward, John Webb, Harry Webb, Patrick Webb, Graham Weller, Rob Welsh, Bryan West, Judith Westrop, Phil Wheatley, Jan White, Annette Williams, Colin Wilson, George Wilson, Paul Wilson, Dick Wise, George Woods, Len Woodward, Alan Woollev.

This list will be updated in each *Newsletter*. Please let the editor know if there are any spelling mistakes or incorrect first names.

Sadly we must record that four Members died recently: Stan Williams, Danny Stephens, Brian Moon and Chris Hansford. Our sympathies go out to their families and friends.

CORRECTIONS The Editor apologises for errors in the last *Newsletter*. There were incorrect names in the Membership List; these have been corrected. Also Steve Apted is John's nephew, not son.