

THE D.G.ENG BUGLE

It is another New Year and another great D.G. Eng BUGLE newsletter; the sixth! I do hope that you enjoy reading the two career briefs in this issue. They are completely different but each is as fascinating as the other. Names, places, interests and experiences will undoubtedly bring back memories and a smile to your face. In an attempt to provide new angles to the DGENg story, I am particularly pleased to have a contribution from John Joint who, as a serving RAF officer, joined the Directorate for his 'enforced' (I suspect) two year stint in MOD(PE). Was he happy? - judge for yourself.

A Blue Suiter in DG EngLand



John Joint

"Tell me about DG Eng", said the young boy sitting at the old man's feet.

And as he spoke he remembered a time many years ago somewhere over the Atlantic, when another young boy gazed out of the window at the world below. You can just imagine the sea of clouds tinged orange by the never-ending sunset, and you can almost glimpse the dark sea way down below, seen through the ever-spinning propeller discs and accompanied by the drone of the piston engines. What were the engines on those old Stratocruisers? You know, the aircraft with the bar downstairs. And maybe that's where it all began.

Born in Brussels and with parents in the Foreign Office overseas, it is hardly surprising that the young boy grew up with aeroplanes. Air travel in those days involved long flights with night stops on the way. And as he grew up and travelled around Europe and to the USA and to Central and South America, he flew in Yorks, Stratocruisers, Britannias (first one into Bogota), Super Constellations, Vikings, Viscounts, Vanguard, Tridents, DC3s, 4s, 7s, and that was just with BOAC, BEA, Pan Am, TWA, and Avianca. Later would come BAe111s, Boeing 707s, 727s, 737s, 747s, 777s, 787s, DC 9s and 10s and all the other modern aeroplanes and airlines.

It is hardly surprising therefore that he grew up wanting to fly and work with aeroplanes, is it? And what better way than with the Royal Air Force?

So there I was having my first experience of working on Jet Engines during training at Cranwell when we had to strip a Jet Provost engine and re-assemble it, before the days of modular engines, guess how many nuts and bolts were left over at the end! Then up and away via Jet Provosts, Jaguars and Phantoms to Tornados. It was after a stint at

Swanton Morley that I first joined the world of Tornado and the RB199 and came across the first character from DG Eng that was to make a mark on my life. It was at an Engine Management Meeting in Turin, sitting round a huge table known as the Irish Table (because whenever you pulled in your chair the hidden parcel shelf kneecapped the unwary) that I came across Chairman Jim Blewitt. Just imagine Mike Williams, chief ROLLS-ROYCE Engineer, talking about the new NBS Mod. Now I had no idea what NBS stood for and, as you know, as a new boy you never show your ignorance, so I stayed shtum. Well the discussion went on, until eventually Jim said: "Er, Mike, what the hell does NBS stand for?" "Ah!" said Mike "Wondered when you'd ask. No Bloody Smoke". Can you believe that we had talked about it for twenty minutes and no one had admitted they didn't know? *(John; this is the hallmark of a classic Chairman who, seeing those glazed eyes around the table, asks the obvious to ensure the less well informed know what's going on! - Ed)*

And while I think about it, for all those of you who flew on the Bae 111 that TurboUnion used on their round robin deliveries. I flew on that very same aeroplane before in San Salvador when it was owned by the airline SAHSA (local nickname: Stay At Home Stay Alive!) and when we took off it was so overloaded that there were people standing in the aisle and sitting in the loo. Talk about commuter flying. Never felt quite comfortable flying in it after that.

After three blissful years in Munich with NAMMA where the only risk was that your wife would find out about the very generous NATO life insurance, I was retro-typed onto Phantoms at Leuchars and it was back to Bonnie Scotland! The Phantom was a machine and a half. Built for efficient production, they were a maintenance engineer's nightmare. Not much fun taking the Speys out of those.

Then three months in Ecuador as a consultant to the Ecuadorian Air Force on their Jaguars, and becoming BAe's Public Enemy No1 for pointing out how the EAF could save money, what a crazy place. One year the EAF had several crashes and the Chief of the EAF decided that the only way to improve the flight safety statistics was to stop flying for three months. It certainly improved the accident rate. The World Cup also helped as nobody ever flew then either. That was during the Falklands war and it was fascinating to compare the different stories from the Embassy Secret folders, the BBC and the Latin American News. It wasn't until the Ark Royal had been sunk for the third time according to the Argentinian news services that the local press woke up and started using BBC reports.

From there I came back to a unique tour as a "Blue Suiter" in DG Eng as Eng T2b. Wow, what an experience! It was full of firsts. It was my first foray into the world of the Civil Service and my first into a truly engineering focussed community. My boss was Malcolm Hurry – Eng T2. What a lovely bloke and the first person I have known who really cared about British Industry and the importance of maintaining it healthy. A hard working, farsighted and open-minded man and we had many a laugh. *(Now you know why I had to print his story!)* Malcolm has strong political convictions (really!) and he and I silenced the whole Plessey senior staff canteen once with a mock *(Mock?, I'm always serious about politics!)* left wing versus right wing debate over lunch (guess who was which). We even tried to organise an Engine Health Monitoring trip to Australia via New Zealand, but Mike Neale saw through that.

Then there was Sue Jaques, now she was the real ruler of the office. She was probably the only one who actually knew what was going on, and was my first chief adviser on sartorial chic regarding spotted ties and striped shirts. Sue saved my bacon many times. And Wyn, a gentle caring woman who claimed to be shocked at the rude things we all talked about. Never did find out if she really was. There I also had my first experience of other quirks of the Ministry: sending typing to Liverpool by train! And who was that bloke who spent every day in Sue's office reading the AA Handbook? Never did know his name.

I had my first foretaste of computers in DG Eng too, working with the Engine Health Monitoring (EHM) Programmes. We actually had the first terminals in our part of the building. We were working with an American firm who had all sorts of computing expertise and I remember this very attractive lady, with more qualifications than I have had hot dinners, demonstrating a programme that plotted the results of engine tests. It took forever to plot the graph axes and labels before instantly plotting the graph itself. When asked why it was so slow, she said it took so long to calculate the complex results that while waiting they deliberately had it draw the axes very slowly to fool the operator into thinking something was happening. Could they be working for Microsoft now?

The EHM programmes were very much a first and it was fascinating working with Artificial Intelligence concepts. Surprisingly, I bumped into a young chap this summer who is using the original AI algorithms from the Harrier as the basis for customer analysis in business.

From DG Eng it was on to be OC Eng at Cottesmore on Tornados and then via Saudi Arabia, Bolivia and New Zealand to a new civilian career with Coopers & Lybrand, now PricewaterhouseCoopers, working all over Europe building consultancy practices and then becoming the European HR Director.

So here I am the man said. An executive coach and conflict management specialist, helping people get the results they want, and having lots of fun doing it. You know, when you do what you really want to do now it doesn't seem like work anymore, does it? (*A bit like retiring John!*)

And so that boy is now the man. Born in Belgium, English Father, South African Mother, Brother born in San Salvador, wife a Kiwi and all his children born in Germany; and his dog? He was so confused he left home. (*Can't say I blame him John!*)

(As an unwelcome footnote to this story I have to report that one of our EHM team at the time; Brian Lee died in September after quite a long battle with Alzheimer's disease. Fittingly perhaps, Malcolm Inglis (who became our AD just after John returned to the RAF) gave the cremation eulogy. Brian was in fact a Whittle 'Reactionary' inherited from his father. He was a most dedicated worker and a popular team member. Our deepest sympathy is extended to his wife June and their two children.

Das Boot

No this is not a submariner epic but one covering a very interesting career on Narrow Boats. I had always wanted to try a canal holiday and I was given the opportunity during the Summer to taste the delights of cruising on The Grand Union waterway. John Stephens (Long term member of the PEGASUS engine office) knew of my keenness and invited

me on board his spanking 60' steel-hulled boat that literally 'turned heads' and drew admiration all the way along the canals. John Stephens had built this machine and his discriminating workmanship was apparent everywhere throughout its construction. This is the other John's story; a career on the UK canals interrupted only briefly by his hobby in MoD.

Career, Canals & Circles



John Stephens

Last year Ted Woodgate and Peter Whitehorn, a colleague from the Harrier Office, joined me on a cruise from Banbury to Newbury via the River Thames on our narrowboat. This year the same crew joined me to cruise along the Rivers Lee and Stort, and Malcolm Hurry joined us at the start of the cruise from Little Venice to Limehouse. Peter Kimbell also joined us for the return trip from Bishop Stortford. During the day with Malcolm he bent my arm to write this which I trust will give you a brief insight into my career and my interest in the inland waterways.

I was born in Neath in 1941 and spent the first 12 years of my life living beside the Neath Canal at Tonna. I had a very early introduction to the canals via an energetic cousin who pushed me, together with my pram, into the Neath Canal when I was 6 months old. As soon as I was old enough to hold a fishing rod I spent most of my spare time on the banks of the local rivers and canals, occasionally falling in but thankfully struggling out. The fishing was not very good; the waters were stained black by the coal mining industry. My rare catches were mainly eels, which my mother often found alive in my jacket pockets.

In 1954 my father's health resulted in a move to Tutshill, Chepstow, also close to water but two very different rivers from the Neath Valley, the Severn and Wye. I enjoyed many hours watching and travelling on the Severn Ferries which operated from Beachley to Aust before the first Severn crossing. The Severn Princess, the only surviving ferry, has recently been recovered from Ireland and is being restored on the riverbank in Chepstow.

The first stage of my career started when I obtained a place at the Forest of Dean Mining & Technical College, Cinderford, which required a round trip of 60 miles a day. I also joined the Chepstow 2272 Air Cadet Sqn and my first summer camp was at RAF Wyton, very nearly the last stop on my ministry career.

On completion of three years at Cinderford I returned to Wales to serve a toolmaking apprenticeship. This was followed by a drawing office, toolrooms and eventually the position of Deputy Chief Inspector at a GKN subsidiary, Precision Forgings, making amongst other things gas turbine compressor blades, vanes and turbine blades by the side of the Monmouthshire Canal in Cwmbran. During this period I

had my first insight into the working practices at ROLLS-ROYCE Bristol. The good old days of cost plus! We had to obtain first off sample die approval before production runs. I had to take samples to Filton and spend most of the day watching and waiting. My position required AID approval, my first involvement with the Ministry. The visiting AID men made regular weekly visits, checked that the Rockwell was in calibration and that test pieces had been put through the magnaflux and dye penetrant lines and then go off to lunch with the Chief Inspector. I soon realised they were on to a pretty good thing and decided that I would apply for a piece of the action. I don't know where I went wrong!

Following many forms and a long wait I was eventually summoned to a board at AQD, Leatherhead Road, Chessington. I believe Jack Barker was the chairman. After another long wait I accepted an Engineering Technical Grade II position with AQD at Teddington Aircraft Controls, Merthyr Tydfil and started in November 1970.

Not long after my appointment we were advised that Teddington's had been bought by United Gas and the factory would be moving to Streattham. We learnt halfway through, the move, however, that Normal Air Garrett had stepped in and bought the aircraft side of Teddington Controls and it would be resighted at Yeovil. United Gas retaining the bellows manufacturing.

During 1972 I was posted to ROLLS-ROYCE Leavesden, Jack Barker thought my blade forging experience would be useful. It was an interesting time, the three shaft Lynx engine was in the development phase and experiencing major oil system sealing problems. My posting coincided with the beginning of the first major gazzumping period and house prices were soaring. After six months of weekly driving a segmented M4 and realising that with escalating costs I could not afford a house within reasonable travelling distance of Leavesden, I obtained a transfer to ROLLS-ROYCE Bristol. I started in the Development Shop. The RB 199 had just completed its first test bed run which lasted only seconds before HP turbine blade failure. The initial blades had gill film cooling holes (rearward of the leading edge), later changed to the leading edge when the HPT cooling air delivery pressure was increased. The inspection of the small diameter cooling holes was a nightmare and I spent many hours with Peter Stagg the inspection foreman, looking at concessions for anomalies on surface and interlink hole drilling. Also at that time the early Concorde were being built and flown out of Bristol to Fairford for flight testing and tradition was that the factory stopped and lined the runway to watch the aircraft's take-off. In those days ROLLS-ROYCE Bristol also had a busy Flight Shed and the Vulcan to flight test the RB199 was being prepared and the odd looking VFW 614 was a regular visitor.

I passed the 1997 PTO II review board and was advised that a job had been identified for me at ROLLS-ROYCE Derby with Les Thompson, who was moving there from Bristol. Ron Noakes, however, put a stop to it; he was moving to Bristol and I think he wanted me for the cricket team. The biggest smile I ever saw on Les Thompson's face was the night we beat ROLLS-ROYCE at cricket, and the longest face on Derek Anthony the ROLLS-ROYCE Quality Manager. My destiny, however, was decided and I stayed at ROLLS-ROYCE Bristol continuing at first on development and then on to production and repair with the RB199 and Pegasus engines.

During the late seventies we started taking family canalboat holidays and in the early eighties we bought our first shell, an 18ft trailable fibreglass Wilderness Water Rat, which I fitted out on the Sharpness Canal. My enthusiasm for the inland

waterways was well under way by now and in 1984 I was successful in obtaining the REO post at ROLLS-ROYCE Parkside. Fields had just been awarded, I believe the first engine competitive tender contract, the Allison T56 overhaul contract, and ROLLS-ROYCE were still in a state of shock. I met and worked with many interesting people, including the two George's, Wilkes and Clark at Alvis, Tom Smith and Co at Parkside, the site has since been flattened. I also enjoyed very much working with the Bulldog/Lycoming IO 360 team and was pleased when we achieved modification clearance for the oil tank to provide oil pump delivery during inverted flight.

Following the move to Parkside we moved house from Thornbury to Stoke Golding on the Ashby Canal. We were lucky and got a mooring for the boat at a very reasonable rate and a decision was made to sell the Water Rat and put the cash towards a steel narrowboat. We selected a boatbuilder in Corby and ordered a 37 ft cruiser style narrowboat, just the steelwork. I took a Perkins diesel engine out of a scrapyard transit van, marinised it, fitted it in the boat at the boatbuilder's together with doors and windows, had it launched at Market Harborough and that evening cruised it back to Hinckley with the help of MoD colleagues. I completed the fit-out over a number of years while keeping myself busy at work but finding time to introduce colleagues to evening socials on the Ashby Canal.

In 1991 I moved to St. Giles to work for Ted Woodgate on the CFM 56 and Pegasus accessories and we moved home to Berkhamsted, on the Grand Union Canal. The Pegasus replacement IGVCs programme gave me the opportunity to visit Washington. On one of my early visits I found the old Chesapeake and Ohio Canal Lock Keepers Cottage near the White House and on later visits the preserved sections of the canal in Georgetown and around the Great Falls of the Potomac. During my time in St Giles we kept the boat mooring in Hinckley. In 1994 we decided to sell the steel cruiser and buy a 60ft narrowboat, built on the lines of a Birmingham Canal Navigations motor tug, again putting the cash from the second boat towards the costs. This time we had a partial fit-out and I found an old 2-cylinder Petter diesel engine in Dorset, which we had installed by the boatbuilder. We launched the boat near Merry Hill, Birmingham and named it Trem, after my father but trem is also Welsh for view, aspect or face of, which we think is appropriate.

In 1995, after the progression through Harrier and Map Prop to SM 24(RAF) I moved to RAF Wyton, back to my first ATC summer camp to finish my career, I thought. Before leaving St. Giles I had been granted VER. Most of my time at Wyton was spent on the replacement Pegasus IGVCs being developed by Hamilton Standard and I eventually retired in May 96. My wife and I had decided that a further house move to Cambridgeshire, cold east winds, no canals only drains below ground level was not for us and we returned to Stoke Golding, a friendly canal side village, with the boat mooring close by.

Out of the blue in late 1996 came the chance of 12 months work in North Carolina, 15 Pegasus engines were being sent to Cherry Point for reconditioning and I was asked to oversee the work. My wife was reluctant at first but was eventually persuaded to go. We craned the boat out of the water and left it on the canal bank at Hinckley locked up the house and left with two suitcases. It was the icing on the cake of my career.

Although we did not have a boat, we lived close to the ocean and spent many weekends riding the ferries of the Outer Banks and Calico Jack's fast ferry from Harkers Island to Cape Lookout Lighthouse, which has very special memories

for us. I was also able to reacquaint myself with a fishing rod and catch fish with comparative ease on the local Sheraton Pier from water a little different from the black waters of the Neath Valley rivers and canals. On the Pier I also had time to talk to the local and vacationing Americans, my strong Welsh accent often generated the question "where are you from" helped me to make many friends and acquaintances. Since retiring we have more or less completed the fitting out of Trem. Over the last two summers we have completed the southern waterways: Lee, Stort, Grand Union, Thames, Wey, Basingstoke, Kennet & Avon. Although we have navigated a significant number of canals in the midlands and the north we still have a few to complete the system and hopefully with good health we will achieve it in the next couple of years.

I would like to take this opportunity to thank those of you with whom I have worked and those of you who have been friends; for the help and friendship that made my career so enjoyable and rewarding.

Best wishes and good health to you all. Regards John



John and Ted enjoying a quiet moment on the towpath. (My thanks to Peter Whitehorn for his super photographs. I am sorry that I could not include more)

Wedded Bliss.



Our favourite Admin. girls pose for a pre-wedding photograph outside Croydon Registry Office on 18th June. No; they didn't marry each other, Sue married Graham (Max already hitched to Robert). Everyone had a fantastic time and Sue wishes to thank everyone who remembered her on the day with cards and good wishes. She was thrilled to receive so many messages and was sorry you couldn't all be there. Sue has now joined her husband in Saudi for a 2 year tour with MoD. We await a new photograph; presumably complete with Yashmak?

A New Book

Not all readers of the DGEug Bugle may be aware that the origins of the Engine Division, of which we were all members, go right back to the early days of military aviation. One George Purvis Bulman was commissioned into the Royal Flying Corps in the early part of the 1914-1918 war, immediately after completing his engineering training. He specialised in engines and served in the AID at Farnborough and later in London, where he attained the rank of Major. Following the Armistice he was demobilised and, becoming a civil servant (somewhat to his dismay!), continued to work on engines in the newly formed Air Ministry.

Eventually in 1928 Bulman became Head of the Ministry's Engine Division and remained in charge until 1944, latterly in the wartime Ministry of Aircraft Production. Some years after his retirement he was persuaded by his former colleagues to write his memoirs, covering his long association with the aero engine world. His enthusiasm for it had been first kindled by the pioneering flights of the early 1900s, and by the time he relinquished his position as Head of the Engine Division (when Rod Banks, who many will remember, succeeded him), he had seen the advent of the jet. Bulman's story is full of human interest. Another link with more recent times is provided by the fact that it was his right hand man, Reggie Schlotel, who appointed none other than our very own Bill Moschini. Though it has to be made clear that this milestone, having occurred after Bulman had left the engine area, is not recorded in the memoirs!

Mike Neale, the last Head of the Engine Division as we all remember it, has now edited George Bulman's memoirs and written a commentary on them, putting them in the context of the later years of the Division, and the whole has been published by the Rolls-Royce Heritage Trust. It makes a fascinating read. Indeed the reviewer for the Royal Aeronautical Society expressed the opinion that 'to all interested in the history and development of the aircraft engine this should be considered essential reading, and also for those a remove away in overall enthusiasm for the aeroplane and its industry.' One can read how our predecessors coped with such aviation epics as the R101 airship, the pioneering pre-war long distance flights of the RAF and the massive build up towards the 1939 war, the war itself, and much besides -gripping stuff.

The full title of the book is '**An Account of Partnership-Industry, Government, and the Aero Engine: The memoirs of George Purvis Bulman.**' Copies can be obtained by sending a cheque for £15, to cover the cost of the book plus postage, and payable to the Rolls-Royce Heritage Trust, to Richard Haigh, Chief Executive, Rolls-Royce Heritage Trust, PO Box 31, Derby DE24 8BJ. Members of the Trust will already know that they can obtain the book at a reduced price.

Well that ends *THE BUGLE* for another issue; I do hope that you have found at least some of it interesting. My thanks as always to everyone for their great inputs, it really has been a pleasure this time compiling from a lot of words thrown at me. Much better to have too much of a good thing I say.

DGEug BUGLE No 6
JANUARY 2003

