

# Frank Firth's DGEng BUGLE



## Frank Firth-A DGEng 'Infiltrator'.

Eventually and after much persuasion, I feel it is time I enlightened you with (perhaps bore you with may be a better phrase) my back-ground. My employment with HM Government goes back a long way but I was in fact a late entry into MoD(PE). I hope that my diverse career will be novel and interesting. This story can be divided into three distinct phases, Military (Royal Navy (RN) Fleet Air Arm) Civilian and finally, Civil Servant.

After a very undistinguished schooling, I was fortunate enough to be accepted for a Royal Navy Artificer Apprenticeship. What a shock that proved to be. After much hard graft however I successfully passed out as an Aircraft Artificer 2<sup>nd</sup> class (Petty Officer) my trade being Airframe and Engines. *Originally I wanted to be a Shipwright Artificer but 'those-in-the-know' thought otherwise. Were they wise? - Who can tell? - But looking back I have no complaints having had a memorable career.*

During my 23 years in the RN, I progressed through the ranks to reach Chief Aircraft Artificer. Along the way I held numerous and interesting posts but only going to sea twice. I was mostly involved in the maintenance of rotary wing aircraft, mainly the Wessex Mk1 & 3. Other posts include, being part of the

original Sea Harrier team at BAe Kingston, Engineering Officer in charge of a Naval Hovercraft Unit in Hong Kong and working on Naval Aircraft Trials Units. This was my last post in the RN and was of interest as the work largely revolved around the lessons learned from the Falklands war. We fitted and tried some very strange equipment.

Experiences in the RN encompassed many events, some amusing some not. The most noteworthy of which was being Engineer-in-charge of ships flight on board HMS Fife. At the time we were in the West Indies and about to deploy back to the UK after a six month tour of the area (fun in the sun). The forecast of a large hurricane due to pass through the area brought an immediate response from the Captain to point the ship North East, stoke up the boilers and steam back home as fast as possible. The 'powers-that-be' however had other ideas and we were told to stand by and instigate disaster relief operations should the hurricane hit a British dependency. The ship's Wessex Mk3 helicopter would undoubtedly be used extensively in any such operation. This was however in no way an ideal vehicle for rescue work as its cabin was crammed full of anti-submarine detection equipment. Nevertheless, after signalling the UK advising of my intentions, the crew worked throughout the night converting 'Humphrey' (as the helicopter was affectionately known) from Helicopter Anti Submarine to that of Short Range Transport. A feat which had never been undertaken at sea and involved completely stripping out all the equipment from the cabin plus accurate and detailed recording of the work undertaken. To decrease the all up weight and thereby increase the load carrying capabilities we even removed all doors and windows. The first flight proved interesting, Humphrey handled like a F1

car accelerating rapidly skywards when the collective was raised.

Hurricane 'David' hit and devastated the island of Dominica on the evening of 29th August 1979. HMS Fife was the first and only ship on task to perform disaster relief duties the very next morning. The sea state prevented the ship going alongside so Humphrey was heavily tasked to ferry the ships rescue teams, food, medical supplies and support equipment around the Island. This task was sustained for a further 6 days, flying virtually continuously from dusk to dawn doing in total 53 flying hours.

The second notable event was during my spell with the Naval Hovercraft Unit in Hong Kong. Our task, using an SRN 6 hovercraft, was to patrol the South China Sea for 'Illegal Immigrants' seeking entry into Hong Kong. This was a big problem for the Hong Kong Government. From mainland China, Hong Kong appeared as the land of gold and riches to the Chinese peasant. The Triads, a vicious and ruthless organisation, took advantage of this and used every possible means to exploit the Chinese seeking such entry. Each night boatloads (or Snakeboats as they were known) of Chinese would be transported from mainland China to Hong Kong, using high speed motor boats. The function of the Hovercraft Unit, in conjunction with the local police, was to patrol the approaches, identify, board and apprehend suspect craft with its occupants. More often than not, these Snakeboats were high speed craft and when ordered to stop sped off into the many small islands and inlets. It was not uncommon, when being pursued, for the Triads to throw their cargo overboard and then beach their craft rather than get caught.

One particular night whilst on patrol our craft hit a rock! There was no 'Sat Nav' in those days. Just mark one eyeball and radar. Fortunately, although the boat was damaged, none of the crew was seriously injured. When I arrived on the scene

(approximately 0200hrs) the SRN was still afloat but with its front end very badly stoved-in and the cabin partly filled with water.

The recovery operation appeared relatively easy. Attach a rope to the craft and the minesweeper recovery vessel, pull it off the rocks and tow it back to base. Alas things are never that simple. During the initial stage, the angle of pull combined with the weight of rope turned the craft over and finished up floating upside down. At that juncture, it was decided to halt the recovery, secure the craft alongside the minesweeper and await daylight before proceeding further.

After the first mishap it was decided that the craft should be 'lightered' back to base. This involved the use of a floating crane and barge. When the crane arrived on the scene it was the biggest thing you have ever seen. You could have lifted the QE2 with it.

The normal lifting points are situated on the upper surface of the craft. With the front end smashed in the two forward lifting brackets had gone. The craft was also floating upside down so an alternative lifting means had to be adopted. Imagine the salvage company's reaction when I presented them with an aircraft type lifting strop. A three inch diameter eye attached to two thin cables with 9/16 AF attachment bolts. It was my intention to attach the sling to the two rear jacking attachment points, slowly raise the craft out of the water (allowing the water within to drain away) then gently lower it onto the barge. After much debate my proposal was accepted and the plan put into action. All I could do now was to watch the operation from the minesweeper.

The first lift was going to plan. One of the handling lines however then 'snagged' resulting in the craft having to be lowered back into the water. Okay so far! A second lift was attempted and everything went to plan. There it was hanging vertically from

the crane, clear of the water, with my lifting points doing their thing. All that was left now was to bring in the barge and gently lower the craft lowered down onto it.

*At the enquiry* I maintained that the barge was travelling far too fast. (But then I am no sailor). As the barge was manoeuvring under the craft a 'Staghorn' (nautical term for a small bollard/mooring rope attachment point) snarled on the dropping skirt of the hovercraft. This in turn pulled the craft from the vertical to about 15 degrees before there was a snapping sound, then a deathly and prolonged silence followed by a very big bang. There was my craft on the barge and the right way up. Unfortunately it was in three pieces. Front, centre (including engine) and rear. Job done!!! All that was required now was to transport the wreck back to base.

The saga continued. Normally a specialist team have to assess an aircraft before it can be declared a 'write off'. In this instance I considered this to be unnecessary and signalled my parent unit to that effect. They, along with Westlands, thought otherwise. The rationale being that the damage that had been sustained was, in their view, similar to what could be expected if the craft had hit a mine. They wanted to ascertain if a craft could still function after such an explosion. I was required to preserve the craft, make ready to run the engine and wait for someone from the UK to fly out. A fruitless exercise as the craft had suffered severe shock loading with the engine completely immersed in salt water for 24 hours together with the instrumentation and wiring in a right old mess. I am pleased to say the expert on seeing the craft agreed fully. The wreck being officially declared a write off and put up for disposal. (Another story there perhaps)

On retirement from the RN I was fortunate enough to be accepted, through external recruitment, into the MoD(PE) as a PTO11

at ATP Chessington. There I spent some 18mths employed as a Technical Publications Officer involved with the production and upkeep of a range of publications. Ironically, despite my rotary wing expertise, the publications I covered were for fixed wing aircraft. (BAE Kingston, Prestwick and Brough)

The branch was scheduled to relocate to Glasgow which was not on my agenda. The reconnaissance visit only served to endorse this view. I make no apologies to any Glaswegian readers here. In my naivety I felt that once transferred the chances of locating back south would be remote. I therefore resigned from the Service.

After Chessington I took up private sector employment with BAe at Hatfield working on the BAe 146 programme. On day 1 I realised I had made the wrong career move. I had used a relocation package when taking the post and was therefore tied to the Company for a number of years. Fortunately not all was doom and gloom. The job required global travel and as such meant that I could enjoy some of the best venues in the world: all at someone else's expense. Yes, that together with the Customer interface was the good part. Alas not so the rest of the job. My role was to advise and assist potential (and current) customers on their initial provisioning requirements and spares' inventories.

Working with the Sales Teams, I was involved with deals in the Middle East, Africa and Indonesia for Royal and Presidential customers. (I joined after the Queens Flight had purchased its two aircraft). I also covered deals with operators in North & South America and of course Europe. All in all I lived a good life but I felt that the marketing strategy was not the best. Despite the aircraft's incredible quietness it was not selling in the numbers envisaged. At the time the main rival was the Fokker 100 with its two Rolls Royce Tay engines as opposed to the four Lycoming ALF502 fitted to the

BAe146. The Fokker was equalising, if not bettering, the BAe's146 sales. Ironically, it is interesting to note that the Dutch built Fokker had more UK content than the British built 146. Overall the BAe146 sales eventually (all variants - 387) exceeded those of the Fokker (283). Fokker went into insolvency in 1997.

The BAe aircraft also gained a poor reputation from its engine. The Lycoming ALF502 engine had been based on its T55 model which had proved so reliable and gave few problems when fitted in various helicopters. Fitting a fan to its front end proved to be a major undertaking and problems were encountered with the ALF502. To compound these shortfalls the aircraft also gained a bad reputation. The 'walk-on/walk-off policy of the US West Coast operators was damaged whenever an engine fault occurred. In the interest of customer satisfaction; rather than miss a take-off slot, the fault was often rectified with complete engine removal as opposed to on-wing fault diagnosis.

After 5 years at Hatfield I re-applied for a job back with MoD(PE).

An interview in the summer of 1989 proved successful and I was offered a HPTO post within DGDQA. My first appointment was as a Project Quality Assurance Officer for the Aircraft and Equipment Directorate in St Giles Court. Notwithstanding my earlier employment within PE, the first thing I had to get to grips with were all the Defence Conditions and Standards etc. Mind you having a reasonable working knowledge of the main standards proved, at later times, to be an invaluable asset.

Life in St Giles Court was good and very interesting where I assisted Project Managers in a diversity of equipments including parachutes, Special Forces equipment, flying helmets, masks and mechanical components. I remained here until its closure in 1996 with the demise of PE. It was then off to work for the RAF

under the Defence Logistic Organisation (DLO) at RAF Wyton .

You will note that I never actually worked for DGEng (Yes!, I am an Infiltrator). Promotion to SPTO (thanks for the help during the interview Ted) led to a post to provide QA support to the RB199, Pegasus and EJ200 project teams.

Following my experiences in MoD(PE) life at RAF Wyton under the DLO was 'Oh; So Different!'. It felt that the Organisation was run entirely by the Military for the Military to the exclusion of everyone else, which I suppose is what the DLO is all about. Having said that, the knowledge I had gained in St Giles helped resolve many a problem or argument in the new set up.

During my time at RAF Wyton I switched from QA to Project Management with a team of Suppliers and Engineers responsible for Auxiliary Power Units, Engine Starting Systems and Auxiliary Engine components.

*Experience gained throughout my career leads me to the conclusion that:- In the past, staff was regarded with high esteem. They were knowledgeable and had the freedom to advance aero engine matters. Today, Staff manages contracts and leave important technical decisions in the hands of the manufacturer. Is this a good thing? I don't know. What I do know is that to-day the work is far less interesting. Retirement for me is the best possible job.*

**Frank Firth**

**DGEng BUGLE No 20**

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