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Service Story of Cdr Keith Hart RN

As a teenager my career plan had not been to join any of the armed services. Perhaps this may be surprising, since my family history includes several direct lines of generations in the Royal Engineers and my father in the Royal Navy during WW I.

On leaving Chichester Grammar School, an examination was taken to begin a five-year shipwright apprenticeship at the Portsmouth Royal Dockyard. This may have been on the advice of my father who was a qualified tradesman with his own business. It did mean that when I became 18, the requirement to begin National Service, probably in the army, was deferred. An integral part of the apprenticeship was that all attended the Royal Dockyard School for two days and evenings a week during their first year. Apprentices were put into classes according to their examination marks on entry to either the Upper or Lower Schools. In the Summer Term only the top 50% of the apprentices went on another year of study. Lower School apprentices left after three year of study, but the Upper School apprentices continued for a 4th year. In my 4th year there were 54 apprentices out of an initial entry of 200+. Whatever class they were in they would all be eligible for National Service on completion of their apprenticeship. Future Instructors Captain Alan Holding and Commander Bob Hutchings were fellow students.

The Royal Dockyard Schools, as a brief overview, were set up to try and overcome the poor educated standard of shipwright apprentices in the naval dockyards. By the end of the century the Schools had progressed far beyond the limited aims for which they were created and had developed into high-calibre technical colleges catering not only for shipwrights but also for electrical and mechanical apprentices, whose influence was to extend far outside the naval dockyards. The schools continued largely unchanged for the first half of the 20th century but, after World War II, changes in the UK's social and educational policy made them increasingly unviable. The last of the school closed in 1971 [Source: K.H. Allen, 'The Royal Dockyard Schools,' Engineering Science and Education Journal,' August 1999].

Regarding National Service, there was another way to further delay this obligation and that was to go to university. I applied to King's College, Durham University, to read for the four-year degree course in naval architecture. However, because of my exam results in the 4th year of the Dockyard School, I joined the second year of the course. Permission was needed from the dockyard as I still had to complete my apprenticeship. They agreed for completion during vacations, for which I was paid. After graduating with an honours degree, I now had to make a decision on my future career. Apart from the Dockyard, industry was an attractive option so a successful application was made to Imperial College, University of London, to read Production Engineering.

All was going well until a letter was received from the Ministry of Defence. It was quite clear that my deferment from National Service ended when I became 26 even though the requirement would be abolished a few months later. With my background in ships I did not want to join the army, and the RAF was not considered. So I successfully applied to the Education Department, MOD for a three-year Short Service commission in the Royal Navy. In November 1959 I was appointed to HMS *Victory*, since re-commissioned as HMS *Nelson* in 1974, to avoid confusion with Admiral Lord Nelson's flagship HMS *Victory* preserved in HM Dockyard, Portsmouth.

The Divisional Course included square bashing, wardroom etiquette and to learn what was expected for all those before and after me. My class at HMS *Victory* is shown below.



In January 1960 the next stage for me was a posting to the Royal Naval College Greenwich to learn how to teach and gain experience of instructing for the first time in my career. This was achieved by an appointment to HMS *Ganges*, a new-entry ratings training establishment near Ipswich. It has since closed because of cuts in defence expenditure. This was followed with an appointment to HMS *Ariel*, Lee on Solent. It was later re-commissioned as HMS *Daedalus*, also since closed as part of defence cuts.

In May of the same year, our first teaching appointments were received in various locations around the UK for each of us to start earning our pay. I was the exception, being

reappointed to the College to instruct Electrical Engineering sub lieutenants in engineering drawing. This was easy for me as part of my shipwright apprenticeship had been in the drawing office doing ship modifications. A memorable one was the Royal Yacht *Britannia*, involving a simple design change. It was never thought then that the yacht would feature in my future career. Other design examples were a raised helicopter ship landing platform and drawings for the construction of ship ventilation systems.

Apart from my teaching duties, I was the player manager for the College football team (photo below). My previous interest in the Boy Scout Association was continued as scoutmaster for the 48th Greenwich (Christ's College) Group, which involved a group of senior scouts being taken for a camping holiday in northern Spain. Time was also found to pass my driving test and buying my first car a Vauxhall Wyvern for £273.



However, before any of this happened, I had to obtain the required Captain's permission to get married to my fiancée, who was living in Newcastle upon Tyne. Naval life became a steep learning experience for both of us as we set up our home in the Kidbrooke area, a cycle ride from Greenwich. At the end of the Summer Term of 1961 my next appointment to HMS *Caledonia*, Rosyth came through. So on a hot summer's day our small belongings were packed into the car and, with my now pregnant wife, I headed north. In those days there were scarce motorways and few bypasses round major cities on route, so traffic queues through them were inevitable. It was made worse by my wife feeling constantly sick in a car with open windows, the

only means of ventilation. We rested for a few days at her home and then travelled to Dunfermline to find accommodation.

I reported for duty at HMS *Caledonia* on 26 June 1961 to be welcomed by Captain Elvin and the senior instructor officer, Commander Coxon. I was introduced to fellow instructor officers and made divisional tutor for the Grenville Division. The morning class starts of 0900 at Greenwich became 0730 attending the colder and all too often wetter divisions parade, followed by class instruction. With my background it was not surprising to become head of Naval Architecture teaching, alongside Mechanics and Mathematics. In addition to playing football and rugby with my division, time was still found to support the local 13th Fife (Rosyth Methodist Church) scout group at Inverkeithing.

Yet another interest came to fore. My mother's father's side came from Elgin, North West Scotland with further lines going back in that side of the family history. Perhaps this is why bagpipes always stirred my emotions. Since *Caledonia* had its own pipe band I joined. Special memories were winning at a solo piping competition, but most of all, playing with

the whole band on the esplanade at Edinburgh castle. It was not the favourite instrument of my wife who preferred to hear me practicing away on the playing fields. I have since been back on two occasions as a spectator to watch the Edinburgh Tattoo with pipe bands from around the world.



The end of my three-year commission was now on the horizon and a decision had to be made on my family with a child on the way. Various posts were applied for at home and abroad, some successful, others not. The one that was challenging and a very tempting offer was head of an engineering department in the now Kumasi Technical University, Ghana. At the time the country had recently obtained independence and there was a certain amount of political uncertainty. If this had become unstable then it might have been difficult to get my family quickly out of the country, so the offer was declined. Better to choose what you know rather than take a risk, a successful application was made to stay as an instructor in the Royal

Navy. My next appointment in January 1964 was to join HMS *Dryad*, Southwick just outside Portsmouth for various courses in preparation for my first sea going appointment. That came on 25 May to HMS *Lowestoft* of the 23rd Escort Squadron, which only lasted for a year, but it did include an unexpected and interesting event, detailed at the web address: www.djbryant.co.uk/instructors/lowestoft/lowestoft01.htm

In October 1965, another change of career direction took place with an appointment to HMS *President* in London for an MSc course in mechanical engineering at the Imperial College of Science & Technology, South Kensington. In addition to lectures my research product was on "brittle fracture," a topic that was of interest to the RN due to micro cracks found in the bulkheads of the nuclear submarines. On completion, I was appointed to HMS *Thunderer*, Plymouth to teach stress analysis in the Mechanical Engineering Department.

My subsequent appointment to HMS *Sultan* uncovered the rich history of that establishment. Its military connections go back to the 1850s when Fort Grange and Fort Rowner were built as part of the defensive ring around Portsmouth, known as Palmerston's folly. These two forts are within the perimeter of the establishment. The site was originally one of the earliest airfields in the country for the Royal Flying Corps and Royal Naval Air Service. Many RN air squadrons were formed and trained here for service in France during the First World War. It became a permanent RAF station in 1918, but was transferred to the Navy in 1945, as HMS *Siskin*, RNAS Gosport.



An air station at Gosport in the 1940s before becoming HMS *Sultan*. by permission of NMRN

The present *Sultan* was commissioned in June 1956 as a Mechanical Training and Repair Establishment after transferring from Portsmouth. *Sultan* is based in Gosport, Hampshire, and provides Marine Engineering training. The establishment was also home to the Admiralty Interview Board and the Central Air and Admiralty Medical Boards.

In April 1971 I was appointed from the Royal Naval Engineering College, Manadon to a new post as Training Design Manager under Commander Ken Harper whose Staff Officer was Lieutenant Commander Tom Wright. The Captain was Ronnie Marcus who had been the Commander when I served at *Caledonia* ten years earlier. By this time *Sultan* was a large training establishment with a complement of about 1,000 including staff and those under training.

The methodology of Objective Training was taught at the Royal Naval School of Educational and Training Technology (RNSETT) at HMS *Nelson*. Application of it to engineering training started with an analysis of engineering tasks in HM ships to determine what skills and education were needed to perform a range of technician jobs, to what standards and under what conditions. These were called the Operational Performance Standards. They were brought back from the ships and then broken down into:

- What should be achieved in the training establishment?
- What could only be accomplished at sea?

These were called the Training Performance Standards, which were then expanded into teaching notes and practical training. This is a much-simplified structure where, at each stage, there was feedback to make sure the requirements were being met. My terms of reference for the *Sultan* appointment were:

- To introduce an objective training design organisation;
- To analyse training and educational career requirements of marine technician engineers;
- To design in-house courses for technician engineers;
- To be the works-liaison Officer for the establishment's rebuilding programme.

My task was to sell the methodology to higher management and to those who would do the analysis and teaching. The detailed analysis was carried out by a small group of experienced technical ratings. To some it was a logical development but others opposed it for a variety of reasons. Notwithstanding that, Commander-in-Chief, Naval Home Command (CINCNAVHOME), said it had to happen; I enjoyed the challenge and the procedures were introduced. However, I was not to see the results, for a new opportunity arose with an unexpected appointment as the first SIO in HMS *Intrepid*, which was with the Dartmouth Training Squadron. I was sorry to leave after one year before the implementation of my plans could be validated.

Postscript:

Many changes took place in HMS *Sultan* following my work there:

- Artificer Apprentice training was transferred from *Caledonia* at Rosyth when it closed in 1982;
- Marine electrical training was transferred from *Collingwood* in 1987;
- Air Engineering training moved to *Sultan* in 1995 when *Daedalus* closed;
- The postgraduate training of Air Engineers and Marine Engineers began in 1995 following the closure of the Royal Naval Engineering College, Manadon at Plymouth;
- The Department of Nuclear Science and Technology moved in following the closure of Royal Naval College, Greenwich in 1998.

Some elements of submarine training were integrated when HMS *Dolphin* closed. Training of Army and civilian personnel has taken place with *Sultan* taking a tri-Service role in engineering training and with Flagship capitalising upon the facilities in the establishment.