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“Schoolies – Close Encounters with the Engineering Kind”

By Engineer Officer Cdr Jim French RN

Introduction

While listening to the RNIOA Team members of Lt Cdr Mike Rose, Cdr Mike Channon and Lt John Nixon give their presentation by Zoom to the Association of Royal Navy Officers (ARNO) in June 2021, it struck me that the Instructor Officer branch has an obvious, unique but probably not well-realised claim amongst Royal Navy branches.

It is quite possible that a Naval Airman (for example an Aircraft Handler) will never come across a Warfare Branch (Mine Warfare) Specialist. Similarly, a Cryptologic Technician may never work alongside a Survival Equipment Technician. There are many more such examples whereby the personnel of RN branches have little or no contact with each other. However, everyone will have encountered an Instructor Officer at some point in their training or education, whether it be during academic phases of courses or when striving to obtain further educational qualifications necessary for advancement. As such, Instructor Officers held the keys to their development; imparting knowledge of those educational subjects that permits the serviceperson to be receptive to the training programmes they require, which then enables achievement of core competences that grow to succeed in effectively delivering collective team capabilities among all branches.

Simply put, we all owe something of great value to Instructor Officers; I most certainly do. Now, I know the critics will say that everyone came across doctors, Physical Training Instructors (“PTIs” or “Club Swingers”) and the Regulators (“Crushers”), so Schoolies are not unique. But, let’s be honest, the Doc’ usually never gave RN personnel any good news, some club swingers had a mission to physically collapse their charges and the Crusher invariably grinned at the prospect of locking transgressors (or the accused) up!

I had many encounters with Instructor Officers throughout my engineering career from when I was an unsure 16-year-old Artificer Apprentice to later as a much more confident, brass hat wearing, Engineer Officer. In this brief article I reflect on what some of those encounters did for me in facilitating my professional and philosophical journey.

While at HMS *Sultan* in the 1980s, I was a “guinea pig” on a pilot course designed and delivered by IOs Mike Rose and John Nixon. At that time, I could be described as a “confident and forthright” young Charge Chief. I had worked extensively in gun turrets, steamed boilers, driven gas turbines and swung electrical loads around and between switchboards; with an 18th birthday in Rio de Janeiro and the Falklands War for my 22nd, I held the view that I didn’t need to be taught anything else. Looking back now, I appreciate that perspective was a little short sighted.

Lieutenants Rose and Nixon gave me, on their Microprocessor Enabling Course during that stormy October of 1987, the knowledge and thirst to go on to design, produce, then deliver the first training courses for the new technology of microprocessor-based control systems that would be the responsibilities of Marine Engineers.

Across the Fleet from Sandowns to Upholders, Vanguarders to Dukes and other ship classes, the Navy now pivoted from pneumatic and analogue controls to multi-bit processors. As such Mike Rose and John Nixon, for some three weeks those many years ago, excited me with new technology, stimulated my inquisitive drive and, above all, caused me to drop the arrogance that there was little more for me to learn. They did not only educate me, the technician, they educated me, the person.



The Microprocessors Classroom in Parson’s Block, HMS *Sultan*, 1987 (Lt John Nixon teaching a class of Engineer Artificers). (<https://pinewoodhill.co.uk/rnioa/gallery/gallery3/parsons1.html>)

So, upon reflection, my mind is now drawn across a lengthy career to some game-changing encounters with Schoolies, and there were many. But I offer three of particular significance because those encounters, between Schoolie and Engineer, imparted lessons for life, which I hold close and tight to this day as they have influenced and became embedded within my core being throughout my Royal Navy career. In the following I anonymise individual officers I mention as I am no longer in contact with them.

The First Encounter – Lt *Alpha*

It was the second night on the moor, Cardinham Moor to be precise, March 1977. Ordnance Electrical Artificer Apprentice French was cold, wet, and angry for having joined the Navy. “Why am I on some Cornish moor, sleeping fully clothed, in a tent that leaks, in a wind that cuts, drinking

lukewarm mock turtle soup, latrining in a hole I have to dig in the soaking soil and then at 0700 standing to attention on a running riverbed being told my beret is dirty, I had not shaved, and my boots seemingly lacked gloss.....” To top it all, I recalled I had endured an almost sleepless night.

“Sir” that morning for the 0700 parade was Lieutenant *Alpha* Royal Navy - Sir when speaking to him, Lieutenant *Alpha* when talking about him. I didn't know his first name, but there was no need to know it. I most certainly didn't know that he too had been an Apprentice, then an Artificer at sea in the 1960s before becoming commissioned as an Instructor Officer in the early 1970s.

“Good morning Apprentice French” he remarked as he stood before me. He was immaculate. His “DPM” trousers had razor-sharp creases in the front and his boots were clean and highly polished, and his puttees were perfectly bound. “Boots not up to standard, seaman's jersey name tally grubby, beret badge dirty, ears that you could grow potatoes in, what is the matter French? I've seen cleaner wrestlers' jock straps!” I started to shake, I was totally disillusioned with everything, and I wanted off this moor, away from this county and out of this Navy. I tried to reply but couldn't form words.

“See me at my Land Rover after this” he ordered.

I duly arrived at his tailgate. Lieutenant *Alpha* taught me Electrical Engineering Science in the school rooms back at the Artificers' alma mater, HMS *Fisgard*. I enjoyed his teaching as he seemed to take time to ensure we all understood and, whilst he was never over familiar with us, he was never aloof or unapproachable and seemed to consider any academic lack of understanding of his subject as his personal failure to communicate effectively.

“Cup of coffee here Frenchie. It's topped up with condensed milk” he said as he encouraged me to take his offering. We were well away from anybody else. “Now, young man, what's the matter. You are a good apprentice; I'm impressed by your inquisitiveness in my lessons, and I know that you are being considered for PO or Chief Apprentice next term. A problem shared is a problem halved. From where I am sitting you've allowed everything on this moor to fold in on you. You have lost your positive mental attitude. Am I right?” “Yes Sir, I just don't get why we sleep in tents that everyone knows leak, eat World War Two ration packs which are out of date, wipe our behinds with paper you could use on a sanding machine, for what? Sorry Sir, for what?”

The coffee was warming me as he started to explain. “This is designed to test you. You are deliberately being brought under great pressure. Everything here is meant to do that. To put you under pressure. Why? Let me tell you. You might think that service in the Royal Navy can be a matter of life and death. I can assure you it is much more serious than that!”. It was years later that I became aware that Lieutenant *Alpha* had borrowed those words from the football manager Bill Shankly, but that mattered not on that March morning.

He continued “You have to hold onto something to be proud of. Whether it be the cleanest beret badge, or dirt-free fingernails, or your boots washed clean and matt polish all over them, focus and hold onto one example of personal standards, then another and another. And be proud of them because during this day, like every day you will have in your career, there will be bad events where it doesn't work, or it was late, or somebody was injured – or worse. But you must always have one thing to fall back on that you are proud of because you did it and it is good. And if you are proud, you will maintain that positive mental attitude. And that will carry you through to success”.

“Aye aye Sir” I replied. “Carry on Apprentice French” he ordered. I turned about and just as I was preparing to set off back to my group, he ordered: “Apprentice French, about turn”. Having done so, he quietly and deliberately spoke. “You are a member of the finest Navy in the world. You are privileged to be the technical future of that Navy. You will have the weight and responsibility of leadership and others including officers, will look to you for guidance, advice, assurance and direction. And there will be times when you falter and are unsure – never let it show. Dig down into whatever you did earlier that day that you are proud of, focus on that and recover. Now, off you go and today be proud that you listened to me, a Schoolie, giving you a piece of advice”.

I took Lieutenant *Alpha*'s advice that and subsequent days. And so on throughout my career. I passed out of HMS *Fisgard* at the end of the following term as the Chief Petty Officer Apprentice of Frew Division.

The Second Encounter – Sub Lt *Bravo*

HMS *Collingwood* in the late 1970s was in a great state of change. Huts that dated back to World War Two were being demolished to make way for massive brick structures, such as the new Atlantic Building. A Sea Wolf building was also nearing completion with a real-life missile launcher, tracker and radar antenna. The antenna span so fast I often thought it would spin off. I passed it, as a member of my class squad, marching to or from instruction in the classrooms of Gibraltar Road, four times a day.

Sub Lieutenant *Bravo* made a significant impression on me as a seventeen-year-old Ordnance Electrical Artificer Apprentice, which I carry to this day. His teachings still resonate with me every time I travel on public transport, visit an unfamiliar building or ride in an elevator.

Initially, to my fellow classmates and I, he was an unusual mentor as his broad Yorkshire dialect was difficult to comprehend and he was a Sub Lieutenant - a rank us well-trod fourth term apprentices had never seen before. Juvenile speculation ran amok in the NAAFI queue regarding his next promotion and what might be holding him back. It seems that Sub Lieutenant *Bravo* had sensed these speculations regarding his career and dialect. He also correctly judged our attitude towards the infamous “Period 8”, which was the last scheduled lesson of the day and perceived by us as an opportunity to take a quiet nap, so we

were rested for a night of socialising. However, this view was not shared by Sub Lieutenant *Bravo*, and he had an outstanding technique for maintaining student focus as will become clear.

“Subby” *Bravo* taught us the theory of electrical machines; drawing the speed against current characteristic of a series-wound DC motor still makes my pulse race today. At the beginning of our second week, however, he entered the classroom carrying a rugby ball just as we snapped smartly to attention while he paced up and down between desks, casually passing the ball from one hand to another.

“Let me be clear,” he explained, “My lessons are designed to provide you with education that you will then use in warships; and note the ‘war’ in ships. You must understand how your machines normally work when healthy, how they work when they carry faults so you can diagnose and rectify them, and how to make them work when they are damaged or unsafe. Therefore, if you think Period 8 is for snoozing and snoring, either leave and join the Cunard Line or see if you can find a herd of Laptev walruses to snort with”.

We sat upright, alert and gripped in anticipation of what was to come next. Sub Lieutenant *Bravo* then explained to us how he “went down the pit as a lad” and completed an electrical apprenticeship. The National Coal Board had educated and trained him to Higher National Certificate standard so as a non-graduate he had joined the Schoolie branch at the lowest rank of entry, namely Sub Lieutenant. As a Pit Electrical Engineer, he explained that he had experienced normal, uneventful days, heavy maintenance days, and pit emergencies and disasters. He took time to explain how a faulty electrical fan had contributed to an explosion in Houghton Main in 1975 that killed five miners. That memory had clearly affected him and caused him to always have focus on what he was doing, and he was determined to instil that attribute into us.

Returning to the rugby ball’s function and period 8, which he turned into an interclass quiz to consolidate the previous lessons’ knowledge. The ball made sure we were all alert because after leading off with the first question he quickly fired the ball at the individual required to give the first answer. If they were dozing, there was a real risk that the ball would hit them; but if we were sharp, caught it and answered the question correctly, not only had we saved ourselves the pain of being clouted with a rugby ball, we had also avoided the wrath of our classmates. This strategy had the effect of merging education and training into “**entertainment**” and we quickly developed considerable mental agility and an ability to reason with technical detail under pressure.

Sub Lieutenant *Bravo* was also fastidious with regard to safety. In the laboratory sessions, he quizzed us relentlessly before entry on safe use of tools, precautions to be taken when working on live electrical equipment and action in the event of electric shock. He also required us to plan for the unexpected. He explained that before we ever start any running machinery, embark upon any operation, trial, or evolution, we should know how to stop it - both in normal

operation and in an emergency. This wouldn’t matter if it was a gun turret’s training motor, or firefighting machinery. “Know how to stop it before you start it” is what he always emphasised. He also stressed the need to orientate ourselves to where the entrance to any compartment is that we entered. Then we should always look for an alternative way out. Finally, we should have, where feasible, a backup exit route and be able to locate all of them in the dark. This, as he rightly explained, was to deal with the lights going out or finding ourselves in thick smoke.

His wise words are engrained in my being to this day. I have had to act upon them for real on several occasions in my career. I took Lieutenant *Bravo*’s advice; stay alert, prepare for the unexpected, know your kit backwards, know how to stop something that you start, and have an exit strategy. Five years later in the South Atlantic I adhered closely to his wise preaching, and my shipmates and I all came back to Portsmouth safe, although not everyone was sound.

Today, my wife smiles at me when, just seated in an aircraft, I always close my eyes and, without seeing, stare at the door and wing exits whilst feeling for my life jacket. And in elevators, I instinctively always stand by the control panel, having “clocked” the emergency stop push, alarm button and the emergency exit soft patch in the roof!

The Third Encounter – Lt Cdr Charlie

The Royal Navy College at Greenwich was, and still is, awe inspiring. Dining with my fellow promotion course officers staring up at Sir James Thornhill’s artwork in the Painted Hall as a newly promoted Acting Sub Lieutenant SD E (ME) I felt humbled. However, I didn’t have much time to feel that way. The first event the following morning was a tutorial with Lieutenant Commander *Charlie*, an Instructor Officer with an exciting and varied background as a Royal Marine Reserve and Mine Clearance Diver. Our discussion was to be the NATO maritime strategy in the Norwegian and Barents Sea in the event of tensions and/or conflict with the Soviet Union. I seem to recall that strategy was called “Forward Defence”. I needed to read up on some papers produced by the Naval War College Press, Newport Rhode Island. This was a long way from thinking about blowing soot as a Charge Chief Marine Engineering Artificer in a steam-propelled Leander-class frigate!

Lieutenant Commander *Charlie* was an Instructor Officer that, I remain convinced of today, knew everything there was to know about anything. One minute he was talking about surging the four US Navy’s Battleship Action Groups hard through the Greenland/Iceland gap. Next, he was explaining, in graphic detail, his personal experiences serving with 41 Commando. Then he was clarifying the cultural (rather than religious) differences between Iranians, being Persian, and Iraqis, being Arabs.

Finally, he was entertaining in explaining subtleties lost on me such as the difference of bouquet between two red wines. His mental agility and the speed and ease with which he deployed incisive cut-and-thrust in conversation stay with me to this day.

This was powerfully evident in his tutorial for promotees like us during the first next-day event after a wine tasting session the previous evening. During the wine tasting, which was part of our induction into life as a commissioned officer, one of my brother colleagues, who I will call Sub Lieutenant *CA*, was getting really quite carried away; holding a commission and being a member of the Wardroom had seemingly gone somewhat to his head. He was so in awe of the situation that he spontaneously decided to take over the wine tasting lecture from the college's wine caterer!

I have to admit that I am not particularly discerning about wines but some of the samples tasted during that occasion ended up prematurely in a spittoon placed in the centre of the room. At the end of the lecture, Sub Lieutenant *CA* was waxing lyrical with comments such as "malolactic, can you taste that?" and "tannin, excellent to precipitate proteins." I had to smile to myself as the previous month had seen us together drinking Courage Sparkling Bitter aboard a destroyer alongside in Portsmouth. The contrast was now quite striking and perhaps a little presumptuous of him.

At the very end, Lieutenant Commander *Charlie* picked up the spittoon with the words - "I'll dispose of these dregs, see you all first thing in the morning after chapel for your tutorial, subject is Gorbachev and Perestroika, be ready!"

The following morning with thumping heads not helped by morning hymns, we shuffled into our tutorial room. Lieutenant Commander *Charlie* was bright-eyed and bushy-tailed. Despite his enthusiastic encouragement to get under the Chairman of the Presidium of the Supreme Soviet's agenda to reform, we were not responding.

"We all seem a bit under the weather today" smiled Lieutenant Commander *Charlie*, "how about a hair of the dog?" "Not for me, sir" I replied. "If you insist" accepted Sub Lieutenant *CA*, joined by three or four of my course colleagues. Lieutenant Commander *Charlie* briefly left the room before returning with two decanters both containing a Rosé wine-coloured liquid. He poured for those that agreed to partake. Sub Lieutenant *CA* swirled the liquid in the bottom, then inserted his nose right up to the bridge into the mouth of the glass, took a sip, appeared to chew it before swallowing. "Very good, medium bodied, lasting finish, is it a Petticoat White Zinfandel?"

"No" replied Lieutenant Commander *Charlie*, "actually it is the dregs out of the spittoons from last night!" I'm not sure if that was the truth or simply a strategy of putting Sub Lieutenant *CA* into a more receptive frame of mind. He followed this immediately with a change of plan for the tutorial. Gorbachev's reforms gave way to Lieutenant Commander *Charlie's* thoughts on inspirational officer-like qualities. Below is a copy of the notes I scribbled onto a card that I retain to this day:

- Do not try and be someone you are not – it will be quickly recognised as weakness of character and an attempt to impersonate.

- Work hard on your self-development, accept criticism as good feedback and advice from whomsoever gives it.
- Hear and ensure you listen. Don't just hear.
- Inspire others to be proud that they serve with you.
- Care for your men (and women) more than you care for yourself.
- Put an hour of time into planning and preparation for any minute of action or challenge you may face. And execute with massive effect, do not make the mistake of taking a knife to a gunfight.
- Learn from past events and experiences; but not just what and when it happened but why it happened in the way it did.

Some years later, I served as the Marine Engineer Officer of the Type 42 Destroyer HMS *Edinburgh* and we deployed as a singleton to the South Atlantic for seven months. I carried that scribbled card within the cover of my diary. Every day for seven months I practised at least one piece of Lieutenant Commander *Charlie's* advice. And on that occasion, unlike my previous return from the Falklands, we all came home safe "and" sound.



Type 42 destroyer HMS *Edinburgh* seen on her way from Stanley to Fitzroy in the Falkland Islands. Source: Wikipedia Image by Harland Quarrington, Ministry of Defence photographer (2007)

In conclusion, my "Schoolies – Close Encounters with the Engineering Kind" describes some of my personal experiences of how Instructor Officers supported and helped me to achieve what I have, and to be who I am. It was considerably more than the academic theories of Laplace Transforms, Kirchhoff's Voltage and Current Laws and Material Properties of Austenitic Steel. It was wise counsel with a focus on ensuring the upholding of the values, ethos and standards for which the Royal Navy is world renowned.

Like many former RN personnel, ratings and officers alike, I remain deeply grateful to the Royal Navy Instructor Officer Branch to this day.

Postscript

The RNIOA Team is most grateful to Cdr Jim French for compiling this interesting and much-appreciated article.

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