

**WEAPON
ENGINEERING**



SEADART MISSILE
SYSTEM

"High Seas Firing"



H.M.S. Southampton Weapon Engineering Department at Fox Bay, Falkland Islands, August, 1983.



Standing — L to R: Burridge, Holmes, Pendrey, Blackburn, Robinson, Stevens, Rhodes, Beattie, Folwell, Grundy, Sloman, Johnson, Jones, Anders, Galer, Denham, Barry, Barnum, O'Neil, Stewart, S. Taylor, Holmes, Barnes, Evans, Hayter, Osborn, Morgan, Hughes, Austin, Gray, Feather, A. S. Taylor, McMillan, Fullick, Armes, Clarke, Ireson, Osborn.
Sitting — L. to R.: Kelly, Hoyle, Radforth, Wallace, Pheasant, Ansell, Blakeley, Curtis, Dugdale, Martinson, Darby, Richardson, Shimmon, Gale, M. Taylor, Ashcroft, Babb, Campbell, Johnson, Daley, Lynes, Battersby, Francis, Wyness.



CPOWEA Rhodes and LWEM Barnum at work on one of the Ops. Room Radar Displays.

EARLY IN the life of HMS " Southampton " her Weapon Engineering Department began to assemble at Woolston to prepare the ship and themselves for the transfer of responsibilities from Vosper Thornycroft to the Navy. By the end of 1980 most officers and senior ratings had joined, with their numbers being swelled in the following months by the remainder of the department. This was a frustrating time, as the members of the department were cast largely in the roles of spectators, unable officially to take an active part in the installation and setting to work of the many systems that were eventually to become their charge. Although the equipment was not yet theirs, members of the department took a close interest in the progress of work, building up the foundation of knowledge that will never find its way into print but that will be passed from man to man as each is relieved throughout the life of the ship. There were trials to be monitored, stores to be checked and vast piles of technical documentation to be digested. And because they were customers without the choice of refusing what they were offered there was continuous pressure from the department on shipbuilders, contractors, project engineers and many others to make sure that what was offered was the best going.



The Weapon Engineering Department of the ship — known as Greenies — although their ancestors of the old Electrical Department lost the distinguishing green stripe nearly thirty years ago — consists of four officers, over 20 senior ratings and up to 45 junior ratings, a total of nearly 70. With their task of maintaining every piece of equipment related to weapons, sensors and communications, this large team transforms a grey painted box of steel crammed with nearly three hundred men into a warship, capable of the air defence of a force of ships and many other roles besides. Leaving aside the small Administrative Section — the brain of the department — the remainder comprises two Technical Sections, each headed by an Officer and Charge Chief Artificer. First there is the Action Data Section, responsible for radars, sonars, computers and all forms of communications. Then there is the Weapon System Section responsible for the Seadart System, its complex tracking radars, the gun system and the close range weapons.



Embarking ammunition alongside " Fort Austin ".

As the months of 1981 passed the pace of life increased as the department became more directly involved in the well-being of the ship and its equipment. By the time the ship was accepted in August of that year all was ready for a year and more of intensive trials and training, to ensure that men and machines were working at their best and with each other. But machines cannot read the tidy programmes and trials schedules of the planners and a variety of unforeseen problems kept the entire department fully occupied.

It was the Falklands Crisis which caused the plans and programmes to be re-written entirely, with six months' work suddenly compressed into two. An already fast pace quickened even further, complicated by a much compressed period of Operational Sea Training at Portland. Nevertheless, some time for light relief was found — hands up those who lost their clothes at the New Inn! During this same period a new computer programme was proved

in the ship and immediately flown to the ships of the Task Force engaged off the Falklands.

By mid-June of 1982, the conflicts of trials and the pressure of time had been overcome and the brand new ship was ready to take its place in the Fleet, which she did by deploying to the South Atlantic and proving that in spite of the haste which had marked the previous two months, the objectives had been achieved. Despite the ravages of heavy weather and demands of a war environment, equipment worked well and rarely broke down. The department took comfort from the clear evidence that their hard work had paid off and that they were more than equal to the problems that fate threw in their direction.

After an emotional return to Portsmouth in October, 1982, there was a heavy workload to recover from the four months of operating a long way from home in a hostile environment. The first turnover of personnel gathered speed. Yet more trials were needed. After Christmas the ship enjoyed its first proper foreign run, but was soon thrust into the turmoil of a period in dockyard hands to fit amongst other things new close range weapons before deploying again to the South Atlantic at the end of April, 1983.

Now as we return we can look back on a repetition of the success of our first deployment. Few will regret that again we avoided the high drama of being engaged in action. All take pride in the fact that they rose again to the demands of the moments and that if the need had arisen, their carefully cossetted equipment would

have shown very sharp teeth! The "Greenies" Mess are ship soccer champions and are perpetual victims of changes in rules to preclude their winning the cake every time the Captain does Messdeck Rounds!

It would have been nice to have a few more opportunities to show that we can play as hard as we work. But we believe we have set and achieved high professional standards that our successors will sustain — a belief reinforced by the Captain's nod of satisfaction.

LWEM Taylor and LWEM Spedding cleaning the new "teeth" — a 30 mm BMARC Cannon.



TWENTY-FOUR



WEM Hayter, WEM Ashcroft and WEM Daley repairing internal communications units — the WE Department equivalent of painting the Forth Bridge.

CCWEA Curtis makes a forceful point forward of the 1022 radar pedestal.



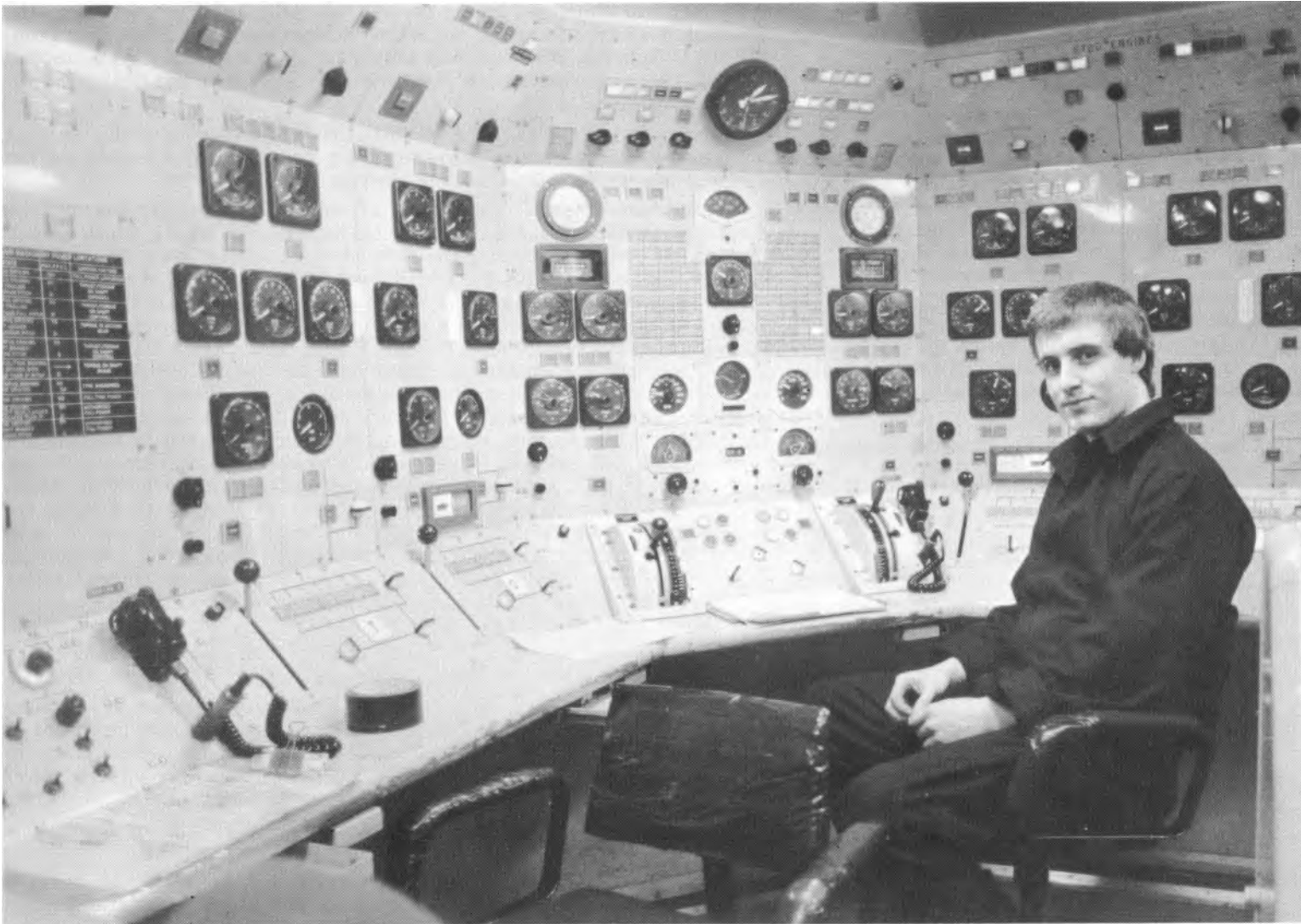
POWEM Ansell demonstrates that a big stick gets more work out of WEM Stewart than out of the equipment.

L.W.E.M. Galer — Repairing
Printed Circuit Boards on the E.
M.O. in the 909 Radar
Maintenance Office.



P.O.W.E.A. Strong and L.W.
E.M. Austen discussing a
defect on the Port L.A.S.
training gearloop.

MARINE ENGINEERING



M.E.M. Rowe
on Watch in
the M.C.R.

MARINE ENGINEERING DEPARTMENT

AS WITH any ship the first members of the ship's company to join are engineers and so it was with HMS "Southampton". The old guard joined to find that while the ship was fitting out their place of work was to be Silvermere House, Obelisk Road, Woolston. While CMEMN(L) Crofts and CMEA(P) Watson went through their honeymoon period together, and the Marine Engineer Officer's Writer, LMEM(M) "Doc" Halliday, learnt to act as referee, Vosper Thorneycroft put the final touches to the ship.

With most of the ship's company recently joined and still settling in, it was time to conduct Acceptance Trials and they did not pass off without one or two problems. The Port Tyne for instance developed a hot gas leak and had to be changed (thus setting the trend for short-lived engines, as will be seen). The Starboard gearbox vibrated badly and this problem caused a lot of head scratching and months of work to sort out. As well as the problems down below the ordinary domestic problems of where everything and everyone was going to live had to be sorted out. The implementation of EBD brought about the Propulsion and Services split within the department. As a result some "Greenies" found that their boss was the CMEA(P) and some "Clankies" found that they worked for the CMEMN(L). While the "Chief Tiff" was finding out about Tyne engine changes the hard way, the CMEMN(L) was discovering that his party-piece was to be exploding generators or to be more precise the tendency for diode rings to detach themselves from the rest of the generator rotating assembly.

At the beginning of 1982 with the Commissioning Ceremony and the first visit to Portland safely behind them the department settled down to sorting out one or two problems below (like changing another Port Tyne), and waiting for the WE's to complete Part 4 Trials, aiming towards an operational date in October, '82. Lt. R. G. Cooke, who had been DMEO since standing by, had his relief nominated and prepared to say good-bye in May.

The events of April, '82, changed the pace of life for everyone and the ship set about the task of preparing for war. Lt. Sanderson, the new DMEO, joined early (while both the Port and Stbd. Tynes were being changed) and the ship went off to BOST. Our time at Portland was drastically shortened and was a mixture of encouragement from the staff and a joint learning process as new information about real damage situations became available. LMEM's Hurst and Mason receiving particular praise from the staff for their leadership of fire-fighting teams during the NBCDX's.

We sailed for the South Atlantic on the 18th June, and although the Argentinian Forces on the Falklands had surrendered few thought the war was over. The Chinese laundrymen decided not to come with us and so MEM's Saltonstall and Burridge took over the task and for the next four months provided free laundry and hot buzzes to the ship's company. "Salty" proved so good at spreading buzzes that he is now the CPO's messman. It wasn't long after we passed Ascension Island that M2 generator's diode ring

gave up and reduced us to three generators for the rest of the deployment. One result of this was that MEA Ashford and MEA Bilton became nocturnal creatures, only able to maintain the stand-by generator overnight. Not to be out done by Services, the Stbd. Tyne died on us shortly afterwards and MEMN Pratley and his team prepared themselves for another engine change. This one was to be rather special, however, as it was the first to be done by two ships at anchor using the boom lifting rig tested by HMS "Southampton" some months earlier. The months rolled into one another as we patrolled to the west of the islands and in the Carrier Operational Area and it was during these long and sometimes boring periods that the "Tankies" developed the sport of RAS rig changing. (CMEM Peatman and LMEM Thompson, MEM's O'Rourke, Armstrong and Mullin are at present playing for a second season). We never quite knew how we would RAS next and the notice was usually in minutes, not hours.

Meanwhile, Chippies (MEA Webb) team were fully employed in keeping the sea on the outside of the ship—repairing the hangar door (twice) and the 4.5" gun turret after particularly heavy seas.

Just when it seemed like it was all over bar the return journey the Starboard Olympus shed part of a combustion can fairing which passed through the turbines including the power turbine. After many hours in the exhaust volute for CMEA(P), DMEO and MEO (and just about everyone else in the area above the rank of CDR) and not a few signals to UK, it was decided to change the Olympus and the power turbine stator and to reclaim the PT rotor blades by grinding out the damage. Thus, HMS "Southampton" and NP2010 chalked up another South Atlantic first. The rot had by now set in and one by one the engines developed a chronic illness of one kind or another. The ship returned to UK very much on a "wing and a prayer". On Sunday, 17th October, HMS "Southampton" returned to Portsmouth to take some well deserved leave and fully supported maintenance. By the time the MEO, Cdr. R. L. Warren, RN, was ready to hand over to his relief, Lt. Cdr. J. L. P. Steinhausen, RN, most of the ills of the South Atlantic deployment had been resolved and there followed a period of relative calm throughout the department. At about the same time as MEO was handing over, POMEM Peatman was promoted Local Acting CPO to relieve CMEM Pearn, who left us to take up a job as an instructor in RNSETT.

The New Year brought with it the prospect of a run ashore in Hamburg, a JMC and a long period on dockyard hands before deploying to the South Atlantic once again.

The MRP at Portsmouth to fit the additional weapons, included changes to the chilled water system and Starboard Tyne change; leaving little time to get the ship ready for Portland. The second Falklands deployment seems to have passed much more quickly than the last and thankfully with far fewer defects (we have managed to fit in one Tyne engine change).

To date we have achieved a total of 10,281 engine running hours on a total of 12 different engines, and have burnt 13,846 tons of fuel.

As to the future the ship is due to start DED in April, 84, and the recent extension of CMEA(P) Watson and CMEMN(L) Crofts drafts seems like proving that good "Chief Tiffs" never die, they only fade away.

M.E. DEPARTMENT 1983 - FALKLAND ISLANDS DEPLOYMENT

MEOLt. Cdr. Steinhausen

DMEOLt. Sanderson

MEOW LMEM(M) Halliday

CMEA(P) Watson

CMEMN(L) Crofts

CPOMEA Bilton
CPOMEA O'Donovan
LMEM Collier
MEM Rowe
MEM Good
MEM Simms

CPOMEA Ashford
POMEA Arthur
LMEM Lockyer
MEM Frain
MEM Walker
MEM Phillips

Propulsion

CPOMEA Miller
POMEA Morley
POMEA Carey
POMEA Rossiter

CMEM Peatman
POMEM Green
LMEM Thompson
MEM Armstrong
MEM Roberts, D. R.
MEM Mullin
MEM O'Rourke

CPOMEA Thornber
POMEM Ord
POMEA Taylor
POMEA Uterharck
LMEM Payne
LMEM Thomas
MEM Farmer
MEM Kemp
MEM Boot
MEM Campbell
MEM Tancock

CPOMEA Pask
POMEA Troke
LMEM Warner
MEM Millington
MEM Burridge
MEM Proffit

Services

CPOMEA Waterman
POMEM Mathews
POMEA Loades
MEM Harris
MEM Thompson
MEM Pick

CPOMEA Webb
LMEM Ebden
MEM Stuttle
MEM Hobson
MEM Batsch

CPOMEA Speak
POMEA Johnston
MEM Green
MEM Hardacker
MEM Roberts, D. A.

Communial Party: LMEM Spall, MEM Saltonstall and MEM Scott

