

SHOULD ENGINEERS WEAR PURPLE CAPS

A WAY AHEAD FOR TECHNICAL OFFICERS IN THE RN

BY

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ABSTRACT

Against the backdrop of a changing national and international scene, an Officers Study Group (OSG) was formed earlier this year to look in detail at the size and shape of the officer corps. This article, which is a personal view of the authors, is designed to open the debate as seen from an Engineer Officer's perspective. The changing fortunes of the Engineer Officer, since the start of the century, are reviewed and the shortcomings of the current structure identified. A concept for a new structure is explored which would give the technically trained officer an enhanced role at all management levels in the Navy.

Every officer in a modern war vessel has to be a fighting engineer . . .

T. Roosevelt, 1899

Introduction

In 1954 a radical review of the officer corps was conducted which resulted in the publication of the famous AFO 1/56 which introduced the COST* scheme and signalled the start of the General List as we now know it. Since then there have been a number of other reviews resulting in subtle but important changes; however the basic premise has remained. Some 35 years further on and the position, shape, task and capability of the RN has changed immeasurably. The current General List concept can go no further in meeting the objectives laid down in the original AFO; indeed many would argue that in trying to mould it to the modern Navy credibility is being stretched further than is often prudent.

*COST—Committee on Officer Structure and Training set up in 1954 under the chairmanship of Vice-Admiral Sir Aubrey Mansergh.

The Navy Board has now agreed that the time is ripe for a further fundamental review of the officer corps and an Officer Study Group (OSG) is being formed to conduct the task. It is due to report in 1993.

This article is designed to open the debate as seen from an Engineer Officer's perspective. The main purpose is to identify the shortcomings of the current structure and hence focus attention on certain features of the new concept that must overcome these. There will be no attempt to solve the problem and come up with a definitive solution but, in order to be constructive and realistic in our conclusions, they have been considered within the framework of a possible concept and this is described in very broad terms.

Background

Sir Louis Le Bailly throws much light on the development of Engineer Officers in the RN in his book *From Fisher to the Falklands*. Only 100 years ago steam was beginning to displace sail and the Engineer was making his often unwelcome presence felt. The Navy has come a long way since then and the position of the Engineer has gone through a number of cycles. As early as 1902 Fisher, himself a man with great technical vision, recognized the importance of harnessing the talents of the Engineer into the very heart of naval business when he decreed that:

The ranks of engineer officers will be assimilated to the corresponding ranks of executive officers and the engineer officers will wear the same uniform and bear the same titles and rank . . . every endeavour will be made to provide those who enter the engineer branch with opportunities equal to those of the executive branch, including the same opportunity of rising to flag rank.

After the First World War there was much soul-searching at the highest levels of the Service as to the reasons for the less than glorious performance of the Navy. It was finally concluded that the Fisher-Selbourne scheme, which made engineering an integral part of naval training, life and thinking, was to blame for loss of the Nelson spirit. The engineering dimension was diluting and diverting attention from the traditional excellence of the executive role of officers and therefore it was necessary to separate the two functions once again.

A memorandum produced by the Board read:

. . . It is of utmost importance to discipline that officers of a ship who possess executive power should be easily distinguishable from those who have not . . . And it is obviously bad for discipline that officers who have never commanded so much as a cutter, let alone a ship or squadron, should be known as captain or admiral . . .

furthermore it was the view of the then Director of Naval Intelligence that

. . . besides having stripes of a particularly distinctive hue, engineers should also wear purple caps.

In the Second World War painful lessons were again learnt about the importance of technology and the Navy emerged at the end much stronger, leaner and fitter in this respect than it had entered. Once again the Admiralty Board were forced to recognize the need to integrate Engineering totally into naval business and in 1955 a study was commissioned into the whole officer corps. This resulted in the publication in 1956 of AFO 1/56.

The vision of the future officer corps arising from AFO 1/56 is encapsulated nicely in the following quotes:

. . . We have decided that every cadet shall in future enter the Navy as an officer—which is his prime function, and that his early training shall be, to the greatest possible extent common whether he is eventually to become a Seaman, an Engineer or a Supply specialist.

. . . Sea command is not, therefore, the exclusive prerogative of any one list or specialisation, but its exercise by a non-Seaman specialist requires a specific appointment 'for seaman duties', or a specific direction from superior authority.

. . . Ultimately, all Commanders of all 4 specialisations except Post List officers will be considered together for promotion to the rank of Captain . . .

. . . There is no doubt that today we are not making full use of the experience and knowledge of the senior officers in the technical branches. Given the chance of more experience in the junior ranks outside their special technical fields, we believe that senior officers of the (E), (L) and (S) branches could and must play an important part in the higher administration of the future Navy.

. . . of the present number of about 50 appointments for Rear Admirals, some 10 would be necessarily filled by officers with Post List experience, some 15 by officers with experience as E, L and S specialists and 25 would thus be available as common appointments.

Interestingly this latter statement gives ratios of:

20% Post List (sea command experience)
30% E, L and S (Engineer, Electrical and Supply)
50% CAPP (i.e. common appointments)

which compares unfavourably with the current ratios of

52% X (seamen)
10.5% ESI (Engineer, Supply and Instructor) (including shared posts in the Procurement Executive)
37.5% CAPP

Having introduced the General List (GL) concept in 1956, it was only a matter of a few years before the COST Scheme was reviewed by a committee chaired by Sir Keith Murray. The Committee found little wrong with the fundamental GL concept but felt that the early training of officers was in need of change with a particular emphasis on improved educational qualifications. From this came the 'Murray Scheme' which introduced higher educational qualifications for entry into the RN (five O levels and two A levels), restricted entry to annually rather than termly and set up the standard package of early training comprising one year at Britannia Royal Naval College (BRNC) (including Dartmouth Training Squadron), one year at sea as a midshipman followed by the RN Engineering College, Manadon (RNEC) for the majority of engineers and a further year at BRNC for the other specializations.

Following this the first major review of the GL took place in 1965 when the Officer Structure Survey Committee (OSSC) was formed. It concluded that the General List was 'serving the Navy well and should continue' but that the 'over-widening of experience at the expense of specialist professionalism' should be avoided. In particular, it concluded that the pooled promotion to captain should not be increased to the extent envisaged by AFO 1/56. Thus we see the start of marginalizing the specialist which COST sought to avoid. The OSSC also decided that the proportion of GL officers to Special Duties (SD) and Supplementary List (SL) was too low and recommended broadening the base of the GL pyramid by increasing the GL intake and opening up the SD/SL transfer avenues. At the same time, it also altered the career factors within each specialization but maintained the overall career factor from lieutenant-commander to captain approximately the same (for all specializations).

In 1971, the Murray Scheme was abandoned in favour of the Naval Cadet Entry/University Cadet Entry scheme which replaced the first year at BRNC and midshipman's year with a package of Naval General Training and split fleet time for some officers. Recently, this scheme has been superseded by the revised officer training structure announced in DCI RN 224/91.

Four officer study groups have been established since the OSSC in 1965. The first, the Review of the Officer Structure Committee (ROSC), reaffirmed the 'continuing value of the present structure based on the COST principles . . . which should not be altered fundamentally'. The only recommendation of significance was the transfer of the Permanent List of the Instructor Branch to the GL; however, implementation of this recommendation was deferred until after the Officer Study Group of 1976. The OSG(76) was tasked with investigating the concept of an officers' structure derived directly from the sea

requirement and the ability of that structure to meet the related shore requirement. In a detailed and complex report the OSG concluded that based on its assumptions, the most important of which was the forecast size of the 1995 Fleet, the concept of a 'sea-generated' officer structure was a viable approach. However, the report went on to warn of the dangers in adopting the methodology without a more careful examination of some of the underlying assumptions. Because of this, the report of the OSG was only accepted as an interim statement and action was not recommended prior to further work (which does not appear to have been initiated). In the wake of Command 8288 (1982), an Officers Structure Group was formed but again it found no evidence that there was a need to change the existing Branch, List and promotion systems. In 1988, a further study investigated the future of the GL and again concluded that the basic List and Specialization structure was sound. It did, however, recognize that there was likely to be significant change in the RN over the following decade and recommended a further look at the officer structure in 'about 5 years time'. Thus we come to the present day and the forthcoming OSG.

Not surprisingly, there has been a reluctance to change something that appears to have worked and there is little doubt that the GL concept has served the RN well since 1956. There has been much fine tuning over the years; recent examples are the early promotion scheme to GL lieutenant-commander and the changed promotion zones for SD lieutenants. But has the GL concept worked for the engineering Specialization as originally conceived? As can be seen from the comparison above the number of jobs available to engineers at rear-admiral level is dramatically less than envisaged. Also, over the last 10 years, the requirement for engineers in total has reduced by 12% whereas the Seaman Officer requirement has shown a small increase. Looking at the present day, some 43% of commanders in the RN have technical and science-based degrees (mainly Engineer and Instructor Officers) yet this inherently added value of talent does not form a significant share of the higher management positions in the RN¹.

Underlying Fact about Current Position

The preceding paragraphs have shown how the current system has developed and how it has diverged from the original concept portrayed in AFO 1/56. In practice if a snap shot is taken of the position of the Engineering specialization in the officer corps at the moment we could be excused for concluding that all is well; on the Admiralty Board there are two engineer officers and there are, or have recently been, other senior officers in key positions such as Captain BRNC, COMCLYDE and DOR(SEA). This shows a commitment to the General List which is extremely encouraging but the underlying trends must be looked at more closely and projected into the future in order to ascertain what the true position is. In this next section we are going to concentrate unashamedly on the Engineering perspective.

In this exercise it is useful to compare the Navy of 1956 with that of today (post-Options) (FIG. 1). In 1956 our Navy consisted of 1 battleship, 2 fleet carriers, 6 light fleet carriers, 10 cruisers, 32 destroyers, 52 frigates and about 43 submarines making a total of about 3000 sea-going officer complement billets in all. In 1994 it will probably consist of 3 carriers, 2 assault ships, 38 destroyers and frigates, 1 aviation training ship (RFA *Argus*) and 20 submarines with a maximum of about 900 billets. The ratio of officers at sea to total officer bearing was about 25% in 1956 and will be about 12% in 1994. Despite this, if the equipment budget in 1956 is compared with that of today it can be seen that in real terms it has gone *up* by some 60%. None of this will come as a great surprise but the statistics help clarify what is known instinctively to be true and that is that there has been a dramatic shift towards technology in our business

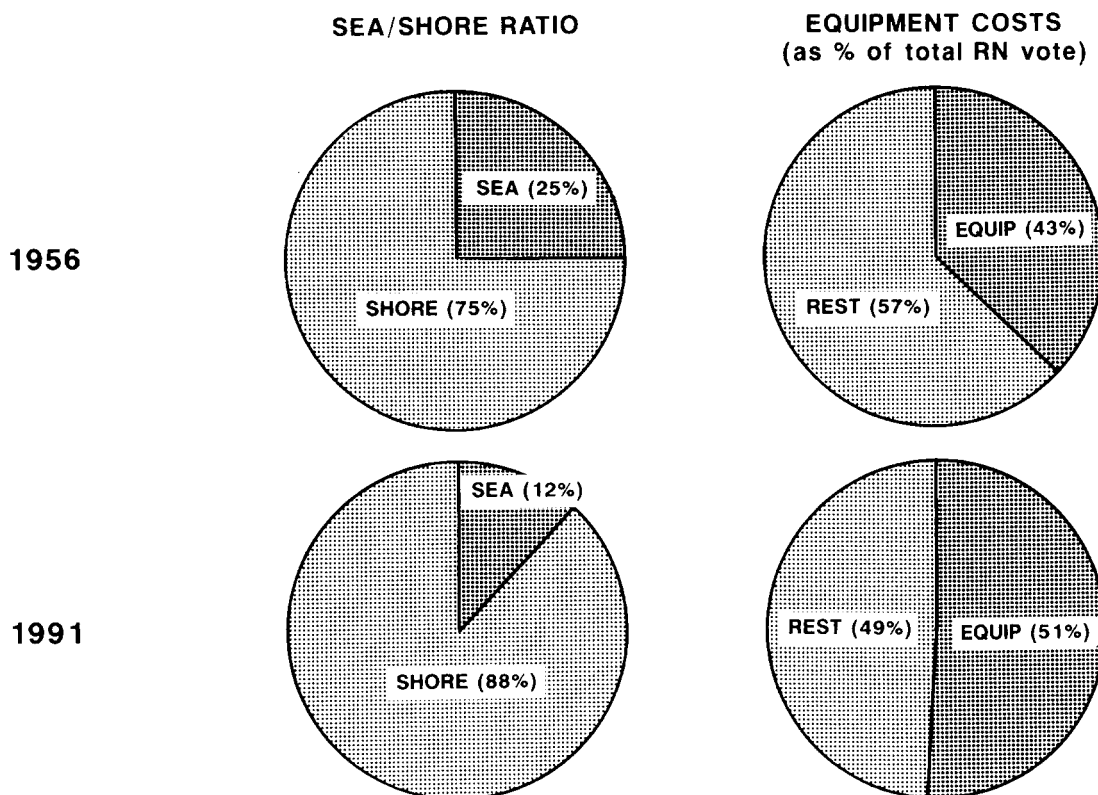


FIG. 1—THE NAVY OF 1956 AND THE NAVY OF 1991

and a growing reliance on shore support in its widest sense i.e. including equipment design. Furthermore while social, demographic and financial pressures force us to reduce the manpower in ships (and the capabilities of modern technology to achieve this is almost limitless) there is no prospect of this trend towards support being reversed.

One might well ask why then, with this shift towards technology, we find ourselves some way from achieving the objectives of AFO 1/56, and indeed current trends indicate that the technical specialist influence in the senior echelons of the Navy is diminishing.

There may be a number of reasons for this but the most probable dominant underlying one can be found in the very nature of our task. The Navy is primarily an operational enterprise not a commercial business. When called upon to act it will be our operational skills that will count not our business sense. Hence we must protect this element and give it every visibility. In a stringent financial climate the natural inclination is to direct the cuts to the non-operational areas first and those whose primary task rests here will therefore take the brunt. There is no conspiracy but the trends in relative effects on Branches are unavoidable, given the current officer structure.

The inescapable facts then are that while the Navy becomes more technically orientated those officers with the essential skills and qualifications in Engineering disciplines to support this trend find themselves actually career-limited by these very skills. There would be no argument with this if it can be established that the 'Command' stream has particular attributes that are not naturally found in a technically trained officer, but is this the case?

In an operational force, such as ours, few would disagree that only those with operational command experience should be able to aspire to top posts such as C-in-C Fleet and FOSF (Flag Officer Surface Flotillas). Given this requirement the Navy needs to pay particular attention to how these officers are bred and should be clear what particular characteristics are essential for good operational command potential. As far as is known these have not been formally

identified but it can be revealing if we contemplate what they might be. Apart from leadership qualities, it is suggested that the following features would be prominent on our list; an agile alert mind, clarity of thought, quick and perceptive reasoning powers, good spacial awareness, good numerate skills, good awareness of modern technology, good affinity with IT equipment, and adequate eyesight. If these qualities are now related to academic qualifications there would be difficulty finding much correlation (although readers might conclude that there does appear to be a bias towards one end of the arts/science spectrum). The required qualities are therefore probably distributed evenly amongst the whole officer corps and as a business we are doing ourselves no favours by restricting that part from which we select these key men to only 50%, as at present.

In deciding the sort of person required in our officer corps we must, of course, look more generally at the total nature of an officer's job, not just the command element. Leaving aside the requirements in war, which of course underpin the whole business, there is an additional vital role to play in peace, a role upon which any success in operations depends. We refer to that of managing our resources, specifying the equipment needed, acquiring it within tight financial restraints, training our men to operate it, and so on. In this respect the issues that dominate our attention in peacetime are not so much the operational use of the equipment but more the understanding of the very complex technical and financial details. Contrast this for a moment with the situation in 1956 and then project ahead well into the next century and it seems clear that the trend is already more towards developing officers who are adept at managing our business as a whole and this will continue. The operational element of command is a less dominant feature of our overall business than it used to be.

Financial pressures on the Defence Budget have always existed but as general awareness of these aspects grows so also will the pressures. Already the cost of service manpower is coming under the microscope and there is every reason to believe that every possible way of introducing more flexibility in our handling of the manpower resource will have to be examined. The authors do not believe it will ever be possible to operate as a commercial enterprise because of the very specialist nature of our business (our skills are not available in the open market) and the fact that we are in the insurance not the production sector, with manpower as our main currency. We depend upon a commitment to and from our men and this must show itself in the conditions of service that are offered. It might, however, be possible to ring the changes on these conditions, trading, for instance, retirement age for naval or specialist pay. It is a complex issue that the OSG may have to wrestle with. Furthermore New Management Strategy (NMS) will force us to examine ways of shedding surplus manpower more easily and it is not difficult to image that the future structure will make much greater use of relatively short-term employment contracts (commissions) which are only extended if the requirement exists. It is acknowledged that this is a likely trend but a note of caution must be sounded. NMS is essentially a tool for short-term management, but our manpower requirement will be driven not only by today's work-load but also by the need to cover for a possible future event. We should not therefore be too hasty in shedding manpower, and any schemes for introducing more flexibility in this area must be matched by other equally effective schemes for recruiting in times of shortage. This latter task is much more difficult.

Alongside all this there are the trends that are occurring in the outside world. We refer of course to the expectations, aspirations and attitudes of the population as a whole. Here recognizable academic qualifications can be expected to play an increasingly dominant part in people's requirement as will subsequent enhancements and career prospects. Family pressures will grow,

especially with more and more wives working, and hence people will continue to shy away from long-term commitments. This contrasts with our need to retain people and therefore get the maximum return from the high unavoidable training costs.

All these trends then point to the fact that the nature of the job has changed dramatically since 1956 as has the environment in which the Navy operates and we are facing a very difficult task of attracting the level of talent that is needed in the officer corps and making the best use of it. The compartments into which officers are divided are restrictive and are no longer completely appropriate to our business.

Effect on Engineering Branch

Concentrating now more exclusively on the trends as they affect the Engineering specialist, there are a few special aspects that need to be addressed:

- (a) *Smaller Navy.* With the phasing out of steam in the surface fleet (and hence the watchkeeping task) and the introduction of more and more automation, the job at sea is becoming much less manpower-intensive. For example the main surface unit, the Type 23, requires just two technical officers (others are accommodated for training purposes). With this as the main platform for gaining sea experience in the surface fleet we are facing serious difficulties in developing officers with adequate experience both to conduct their charge job satisfactorily and be credible in shore support posts. Much the same arguments exist for the SM and Air areas.
- (b) *Increasing complexity of equipment.* The nature and range of equipment on board is likely to become too specialized to be within the capacity of one or two technical officers to provide necessary in-depth expertise. It may not be possible to carry more specialist officers in ships and therefore we should be looking for ways to spread the load more amongst the operators. Even then the role at sea will be more technical management in nature. Furthermore the trend ashore is towards more and more reliance on civilian contractors in the design of this equipment but the naval engineer specialist will continue to be a crucial element in being able to understand the state of the art and apply it in the form of clear, unambiguous and realistic specifications.
- (c) *Fewer officers.* If the size of the officer corps reduces and the divisions within it remain unchanged (e.g. AE, WE, ME, etc.) then the management of sensible career progressions becomes more and more difficult. The problems that might be encountered are already typified in areas such the WESM BN officers. The boundaries must be blurred not sharpened.
- (d) *Financial accountability.* Financial awareness is now an essential attribute of a modern naval officer. The engineering specialist with his numerate skills is likely to play a prominent part in managing this aspect of our business particularly in the Procurement Executive (PE) and Naval Support Command.

Despite the temptation, implicit in some of the above, to dilute expertise there is little doubt that in a highly sophisticated and technological Armed Service, dependent on reliable equipment which is professionally designed, operated and maintained, there will always be a role for technical know-how both at sea and ashore. Indeed, this has been pivotal in the Navy's successful evolution. The trick will be to develop a new structure that retains specialist expertise in a wide range of disciplines but at the same time allows flexibility of employment.

Features of Future Structure

The overall objectives laid down in AFO 1/56 and quoted earlier in this article have a theme that is as true today as it was 35 years ago and it would do little harm if they were to form a basis for the OSG. The fact is that we have drifted away from being able to realize them and any recent encouraging innovative appointing examples have arisen through force of intent rather than any natural process. It is the structure itself that needs to be altered and in the process of doing this the following points will need to be addressed.

- (a) The Navy must be able to grow people for the top ranks from the widest possible number of officers and certainly all those in the main core. Put another way, all junior officers joining the main core should have equal opportunity to reach the highest ranks.
- (b) With an ever more technically biased Navy greater emphasis must be placed on this aspect both in the training and employment of all officers. The current division between the specialist and the operator is becoming less and less appropriate.
- (c) There will be a continuing need for technical specialist skills at sea and a developing need for them ashore. Ways must be found for finding wider opportunities for sea experience for these specialist officers.
- (d) In order to attract the right quality of person and ensure the right intellect, all officers embarking on a career in the main core should be graduates. Furthermore the opportunity for further professional enhancement should be seen to be part of the conditions of employment, providing benefit to the officer and the Service.
- (e) The Navy will have to continue to demonstrate a long-term commitment to the officer if it is to expect the same sort of essential commitment in return. We are not in a hire and fire business.
- (f) In order to reduce the cost of expensive manpower that is no longer drawing realistically on its sea or front line experience, greater use will need to be made of selection processes and career break points. In order to retain the vital commitment of the Service to the man greater use should be made of changes to conditions of Service rather than redundancy where appropriate.
- (g) There will need to be a greater emphasis on management training for all officers.
- (h) More rigorous financial management will press for a more flexible manpower resource. This is likely to lead to greater use of relatively short contracts of employment and to a promotion policy that is tied more closely to requirement.

So far, Lists have not been mentioned. This is mainly because a decision on them will follow from any conclusions on the new officer structure and should not lead it. It is however the authors' view that in order to retain the maximum professionalism, flexibility and opportunity for all officers the new structure will need to be based upon the main core referred to above, with opportunities for those who develop later to filter in at appropriate stages. Thus the opportunities for ratings to rise from the ranks will remain.

Possible Structure

The underlying requirement is for a more common approach to the early training for our officers so that they are both tactically and technically aware: through this, sea command open to all and a common mainstream officer at captain level may emerge. It is about now that the extreme views at either end of the range of options start to dig in and take up their defensive positions. On the

one hand we have the deep specialist advocate and on the other the advocate of the 'line officer' concept. Is there not possibly a workable mid course that will meet our requirements and will see the Navy safely and healthily into the next century? It is obviously up to the authors to suggest something, so here goes (FIG. 2).

All officers in the main core should be graduates and they should undergo common basic training much as now. The graduates may be bred externally or internally but through careful advertising the Navy should try to steer applicants more towards technically biased degrees. Market forces dictate that to achieve the required number of officers of CEng status the majority of engineering graduates will have to be trained internally, although we should strive to widen the entry requirements to include officers with a great variety of A levels. The content of the course should continue to aim towards a degree designed specifically for the Navy, i.e. with emphasis on technical aspects, management, finance, etc.

All officers would then undergo application training in one discipline or another, e.g. platform, above water weapons, under water weapons, command control and communications, navigation, logistics, air, etc. This would always be directed towards an operator/maintainer concept and it would be followed by PJTs for the first sea job. This training package would also dictate the basic professional skills of the officer.

In their first sea job in a complemented billet all officers would be appointed to a billet appropriate to their particular application training but they would also be required to continue general duties and obtain a Bridge Watchkeeping Certificate. This concept would of necessity require a review of principles for complementing ships, but this is just one of the many issues that are bound to be addressed by the OSG.

On completion of this phase we come to the first break point. Taking into account the officer's wishes, the Navy would now make the first move towards streaming officers. The authors believe there might be three basic streams—Tactical, Executive (for want of a better title) and Specialist. The Tactical stream would be open to all main core officers and they would be trained as PWOs before returning to sea in a tactical role. The Specialist would have to be someone with appropriate academic training (e.g. an engineer would have to be someone who was eligible to become Chartered) and someone who saw the rest of his career concentrated in a relatively narrow specialist area, e.g. PE, ADP, IT, etc. These people might well at this stage go on to complete further academic training. The Executive stream would contain the rest (and probably majority) and would comprise a mixture of officers, including potential engineers, who are at that stage anxious to pursue a career with a fairly broad pattern of employment.

Officers in the Executive and Specialist streams would probably complete an appropriate shore appointment (e.g. Specialist officer in PE, Executive officer in any area) before returning to sea in billets which may not be easily identifiable with the current manning principles, but would certainly embrace the current SO, WEO, MEO and 1st Lieutenant posts. As far as the Engineer is concerned (whether in the Specialist or Executive stream) this would be his Charge Job.

At this stage it is worth pointing out that the authors see much greater flexibility in employment of officers in the 'charge appointment'. True there would be the Chartered Engineers filling a number of these posts, but they would join up with other officers who may have entered the service with only loosely relevant academic backgrounds but who would have completed an engineering-based application training. In order to provide some confidence in this concept the authors conducted a brief analysis of the jobs currently filled by Engineer Officers and satisfied themselves that well over half could be filled by

these latter officers. Incidentally, as part of this exercise it was also concluded that in order to fill those posts requiring Chartered status we need about the same number of officers with the relevant qualifications as we actually have at the moment.

After a second, or possibly a third sea job the Tactical stream would again be subject to a selection process and those not wishing or required to stay in this stream would switch to the Executive stream in much the same way as occurs now with the SASB (Sea Appointments Selection Board). Any officers of potential Chartered Engineer status who are transferred at this stage would continue to be employed much as at present but their experience would be much broader and their credibility for a wide range of key senior appointments much greater. Those officers in the Tactical stream who achieve sea command of a major war vessel would form the pool from which certain higher level posts were filled, e.g. C-in-C Fleet.

The deep specialist and some other officers who for one reason or another have acquired little sea experience may now be offered changed conditions of service. The authors envisage that this may take the form of continued employment as a sort of semi-uniformed officer. This might involve a phased reduction to civilian pay scales but with longer guaranteed employment and different promotion prospects.

In order to meet the demands for a more flexible officer corps maximum use would have to be made of short commissions, recruitment from the lower deck, more reactive promotion policies and, as already proposed, changed terms of employment. Important though these aspects are, they are peripheral to the main thrust of this article and are therefore not considered in any depth.

The advantages of the above scheme are numerous. It maintains the specialist input that many regard so important whilst at the same time providing an opportunity for all. Even at the more senior levels, when officers would have established themselves in one of the streams, there would still be the same scope as now for cross appointing; indeed because of the broader based initial experience the scope should be improved. It is acknowledged that there are problems, particularly down amongst the weeds, but the basic premise is surely worth exploring fully and maybe it can be built upon to construct a new officer structure that is truly tailor-made for the next century.

In Conclusion

In his book *From Fisher to the Falklands* Sir Louis Le Bailly argues that the near humiliation of Great Britain in the First World War and the large loss of life both on sea and on land were to a very large extent due to the poor strategic and tactical skills of the leaders of the Navy. The Navy attributed its failings to loss of the Nelson spirit as a result of the Fisher-Selbourne reforms, and the introduction of the engineer into an executive role. He was therefore banished to a separate existence in a notorious reorganization labelled by engineers 'The Great Betrayal'. Naval technology stagnated, and the Navy entered the Second World War with equipment inferior in terms of both capability and performance. AFO 1/56 returned to Fisher's principles and made a bold and irreversible step towards integrating engineering into the main structure of the Navy. This has served us well. Both Command and Engineering emerged with credit from the Falklands and Gulf campaigns, with none of the soul-searching which both World Wars had prompted. (Both demonstrated, however, the need for more training and attention to the matter of logistic support). The clear lesson is that we must build on the integration achieved by AFO 1/56, and not allow reversion to separation of Engineering from Command such as occurred between the two World Wars. The OSG is happening at a time when force

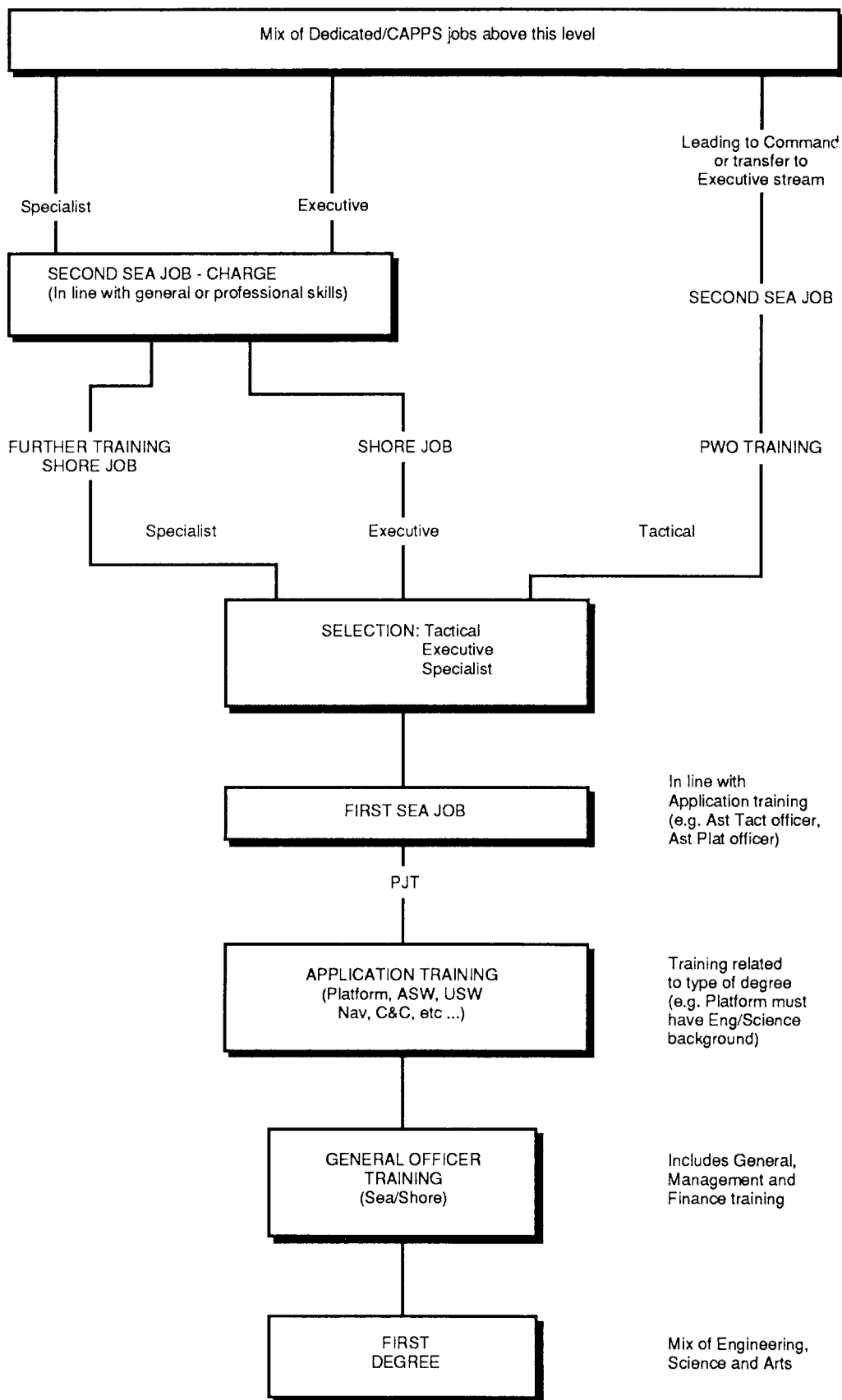


FIG. 2—POSSIBLE CAREER STRUCTURE FOR MAIN CORE OFFICERS

ASW: Above Water Weapons
 C & C: Command, Control and Communications
 CAPPS: Common Appointments
 Nav: Navigation

PJT: Pre-Joining Training
 PWO: Principal Warfare Officer
 USW: Under Water Weapons

reductions are putting such strains on the organization that such an outcome is at least a possibility. For the future health of the Navy it must be firmly resisted.

The future Navy must be a structure that allows all officers in the main core to use their strengths to the maximum benefit of both the individual and the Service. All officers should be technically literate and those with particular tactical acumen should be able to pursue their careers up this tree as far as the system and their ability allows. The structure will have to acknowledge the growing importance of all support aspects in the successful execution of naval business and will have to provide avenues for officers in this and Specialist areas to aspire to the very highest positions of influence.

Back in 1957 the last Engineer-in-Chief of the Fleet, Vice-Admiral Sir Frank Mason, wrote to the First Sea Lord:

I see a number of dangers close at hand which can stultify the high intentions of AFO 1/56. The fact that they spring from perfectly natural causes makes them none the less dangerous; the more so as the motives which give rise to them are sincere.

This same note could well be written today. The trends described in this paper need careful analysis and, if substantiated, there are indeed dangers ahead not only for the position of the technically trained officer but also for the officer corps as a whole.

Reference

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