

WHERE THE HELL'S MY RELIEF?

BY

COMMANDER R. J. ROLLS, C. ENG., M.I. MAR. E., R.N.
(formerly Regional Careers Staff Officer (South-West), H.M.S. 'Flying Fox')

ABSTRACT

The effects of the current demographic trough and the national recruiting climate on engineering officer recruiting are discussed.

Background

Engineer officers leaving the service require replacement. Those leaving do so for a variety of reasons. These may be age (end of engagement), voluntary retirement, compulsory retirement and, during the early stages, training wastage. It is not the intention of this article to discuss the reasons for either voluntary or compulsory retirement nor to debate the issues on training wastage. However, since this article is not only intended to address the recruitment of naval engineer officers but to provoke discussion, it is hoped that subsequent articles and correspondence will confront these issues.

To offset the normal exodus of engineer officers from the service the manpower planners have the difficult task of setting recruiting targets. Without crystal balls they have to allow for expansion/contraction of the Navy, for increases/decreases in voluntary retirements and training wastage, and indeed for the overall national recruitment climate. This climate is affected by, for example:

- (a) Demographic changes.
- (b) Expansion of the economy.
- (c) The educational system.
- (d) Improvements in civilian employment conditions.
- (e) Changes in attitudes.
- (f) The status of engineers.

Statistical analysis and anticipation of trends enable estimates of recruiting targets to be set. These targets anticipate wastage, and the recruiting climate. These recruiting targets are therefore greater than the requirement to man the fleet at senior lieutenant/junior lieutenant-commander level. To meet these recruiting targets the Royal Navy must attract high quality, keen applicants who aspire to be naval engineers. Since the average conversion rate of applicants to entrants for the Royal Navy as a whole, measured over the last seven years, is approximately 30%, the reader will realize some of the normal problems facing the recruiters. These normal problems are now exacerbated by additional problems posed by the national recruitment climate.

Demographic Changes

Over the last two years the Government, the Confederation of British Industries, the Engineering Council and many other organizations have been warning the nation of the effects of the demographic trough, resulting from the low birth rate during the 1970s. All resulting predictions of these effects are unfavourable for engineer officer recruiting. The most significant predictions are:

- (a) The number of school leavers decline by 28% between 1985 and 1995.
- (b) The number of school leavers with five O Levels or GCSEs available for employment drops by 27% from 1985 to 1994. (This will affect artificer and mechanic entries).
- (c) The number of male school leavers with two or more A Levels declines by 21 – 24% from 1985 to 1995.
- (d) The number of male school leavers with two or more A Levels ready to enter employment (i.e. those not going on to Further Education) declines by 46% between 1985 to 1995.
- (e) The number of graduates is expected to increase between 1986 to 1992. However a rapid and sustained growth in demand for graduates overall has already resulted in University applications for engineering and technology falling by 11% over the last three years. The predictions are that the demand for engineering graduates will increase by 20% over the next decade.

Expansion of the Economy

The current expansion of the economy has increased the demand for talented and qualified young people. For graduates, in particular, demand is booming as more employers see them as the key to greater efficiency and competitiveness. They are being sought not only in the traditional areas of

research, management and administration, law and accountancy, but also in new growth sectors such as finance, retailing, tourism, fast food and the media.

More graduates are expected to go into small businesses and self employment.

Whatever the precise level and pattern of overall graduate demand it seems clear that it will exceed the output in the 1990s, and that competition among employers will intensify, particularly in the engineering and technology sectors. Already it is noticeable that when universities do produce graduates with engineering and technology skills they are increasingly attracted to well paid jobs in the city—'the mating call of the Porsche'.

The 18 year old school leaver is also in high demand. This has led to a pay boom for the young in the banking, finance and service sectors. The age at which a recruit becomes eligible for an adult rate of pay has been reduced from 19 to 18 and, in addition to increases well above the rate of inflation, lump sums and increased cost of living allowances have been paid. The banking, insurance and retail sectors are already finding difficulties in recruiting O Level leavers and some have reduced entry qualifications.

The CBI has appealed to employers to offer school leavers less pay and more training, and fears that high pay offers encourage youngsters to neglect training and further education. These trends, both at graduate and O and A Level leavers, will leave the Royal Navy at a considerable disadvantage compared with the civilian recruiter.

The Educational System

Despite all the upheavals and debate over a national curriculum and the introduction of GCSEs to replace O Levels, it is apparent from recent press articles that the current shortage of maths, physics and science teachers indicates that our schools are facing a crisis. This shortage must be resolved if pupils are to enjoy both maths and physics and progress to both GCSEs and the A Level results required for engineering degree courses.

The Engineering Council has advocated a series of measures to improve matters. These include the suggestion that suitable engineers transfer to a career in the teaching profession, that universities should 'widen the gateway' to higher education by accepting pupils with less than the required grades in academic qualifications and the establishment of 'access courses' which would prepare students for engineering degree courses.

Other initiatives are the establishment of a new Integrated Engineering Degree Programme (IEDP) reflecting the need by Industry for a more broadly based degree.

Further initiatives include the provision of engineers to act as mentors in giving technical and material assistance to schools participating in Science Design and Technology Award Schemes. This scheme is designed to match the curriculum developments and foster strong relationships between schools, industry and the local community.

These initiatives and many other measures have been welcomed by educationalists. They have been in action over the last few years under the Engineering Council slogan of

'Engineering in Schools'.—We have a dream. That British Technology can once again be the best in the world. A continuing supply of clever engineers and competent technicians will be needed. So we must enthuse school children and their parents about engineering!

Who can doubt that this slogan goes to the heart of the problem?

At regional level the Engineering Council has also established the Engineering Council Regional Organizations (ERCOs) to project the engineering profession and industry within society as a whole, and thereby help to raise

the status of engineers. ERCOs have fostered links between local engineers and schools. The Neighbourhood Engineers scheme is designed to provide pupils, teachers and parents with an informal source of practical help in all matters related to engineering. Young Engineers' Clubs have been established, the promotion of Problem Solving Projects requiring direct application of engineering principles, and the use of young engineers presenting their own experience in an exciting way to schools in the 'Opening Windows on Engineering' scheme.

Despite these national and regional innovations the education debate continues and until the shortage of good maths and physics teachers is resolved, the educational climate does not auger well for recruitment of R.N. engineers.

Improvement in Civilian Employment Conditions

The scramble to recruit graduates and school leavers, whose numbers are steadily decreasing, has led to increasing improvements in the conditions of civilian employment. As demand exceeds the output the incentives are likely to increase. These include high starting salaries with incremental pay, free membership of BUPA, free life insurance and portable pension schemes with early retirement options, long leave entitlements, sick leave, subsidized meals, company cars, credit cards for expenses, profit sharing and shares rights. For the would-be graduates, organizations are beginning to sharpen and widen their recruiting activities, increasing support for all levels of education in the form of sponsorship and bursaries, and improving their use and employment of those with scarce skills. For individuals the returns from three years in Higher Education are likely to continue to improve.

Changes in Attitudes

Changes in attitudes of young people are difficult to predict, but the trend to greater affluence and materialism is likely to continue. The notions of service and commitment are being displaced by concern for personal satisfaction and job mobility. Young people are looking for opportunities to acquire transferable skills in order to improve their marketability rather than seeking a concept of vocation.

The changing attitudes of educationalists, parents and the public are also relevant. Schools with falling numbers of students, the opportunity of opting out of the state system, the public's apparent preference for the independent schools, together with joint aspirations for higher education are all affecting attitudes. Teachers and parents increasingly advise 18 year olds to defer career decisions, to keep options open and defer job applications until after graduation.

The current R.N. image perhaps suffers the following distortions:

- (a) The R.N. is a declining force with fewer ships.
- (b) The less intelligent join the services; those with most potential and initiative go to university and keep options open.
- (c) Recruits have to sign on for life.
- (d) Officers have to be upper class rather than intelligent.
- (e) Selection criteria are based on 'Gung ho' leadership requirements only. This debars maths and physics students, traditionally the hardest worked and introverted of students.
- (f) R.N. engineers have a narrow range of duties and employment.
- (g) Family separation is excessive.

In sum the current national recruiting climate is not favourable to the recruitment of naval engineers and in particular for the Manadon entry.

The R.N. Recruiting Organization

The Director of Naval Recruiting and the Deputy Director Recruiting (Officers) have responsibility for engineer officer recruiting. The coverage of schools and universities is undertaken by small teams of officers on a regional basis:

- (a) Four Senior Schools Liaison Officers (SSLOs). The SSLOs, retired R.N. captains, cover between them some 280 major independent schools. The SSLOs, East, West, South and North, are based at London, Bristol, Southampton and Rosyth respectively.
- (b) Five Regional Careers Staff Officers (RCSOs). The RCSOs, serving R.N. commanders/majors/chief officer WRNSs, cover approximately 1500 schools each, of which some 250 are considered officer producing schools. These schools are covered by three Area Schools Liaison Officers, (ASLOs), who are serving R.N., R.M. or WRNS lieutenant/lieutenant-commanders. In addition each of the five regions has a Graduate Liaison Officer (GLO), a serving graduate R.N., R.M. or WRNS lieutenant who covers some 35 universities, polytechnics and colleges of higher education in their region. The RCSOs, ASLOs and GLOs, designated North, South-East, South-West, East and West, are based at Rosyth, London, Bristol, Derby and Birmingham respectively.

Methods of Entry (Engineers)

Scholarship/Reserved Place Scheme

Designed for young men in their GCSE year who desire full career commissions. Applications should be forwarded before taking GCSEs. On gaining the necessary five GCSEs, including maths, english and a physics-based science subject, the candidate undertakes the Admiralty Interview Board in competition with other candidates. If successful he is awarded a scholarship for the two-year period studying A Levels, or a firm offer of a reserved place at Britannia Royal Naval College on satisfactorily gaining maths and physics A Level results. In due course he could go on to a University Cadetship or Bursary. Unsuccessful candidates are encouraged to try later for either NCE, or subsequent DGE entry (see below).

Naval College Entry (NCE)

The Manadon entry. Designed for young men who want a medium or full career commission and who do not want/are not qualified to go on to a civilian university or polytechnic, or who see advantages in the Manadon degree.

University Cadetship/Bursary

Designed for those who have been offered a place at a university or polytechnic of their choice reading an engineering degree recognized by the chartered engineering institutes and who wish for R.N. financial sponsorship.

Direct Graduate Entry (DGE)

Designed for those (some of whom may well have unsuccessfully attended Admiralty Interview Board previously) who are shortly to gain, or already hold an acceptable engineering degree.

WRNS Engineer Officer

The Admiralty Board has introduced the recruitment of suitably qualified young women who are interested in an engineering career to alleviate the shortage of male engineer officers in the AE and WE sub-specializations.

The scheme has been broadened by the introduction of provision for suitably qualified non-graduate candidates to undertake an engineering degree at the R.N. Engineering College, Manadon. Annual targets will be set in the light of male recruiting achievements.

Details of methods of entry, educational and medical qualifications, various age limits, etc., are all obtainable from SSLOs and RCSOs, who are listed in the R.N. telephone directory. Information is also available from the High Street Careers Information Offices (CIOs) listed in British Telecom telephone directories under Naval Establishments.

The Future

Will we see the Western Morning News and National Press headlines?

De Savary purchases RNEC Manadon;

Manadon closes for lack of students;

Fleet remains in harbour for lack of Engineer Officers and Artificers.

The demographic trough, the current deficiencies in the educational system, and the current and predicted national recruiting climate suggest that we may.

The Engineering Council has recognized the problems and taken measures over the last two years to remedy the situation. Has the Royal Navy succumbed to that common trait of addressing problems when they are already on top of us?

Where's your relief? He is in our schools. Go and find him.

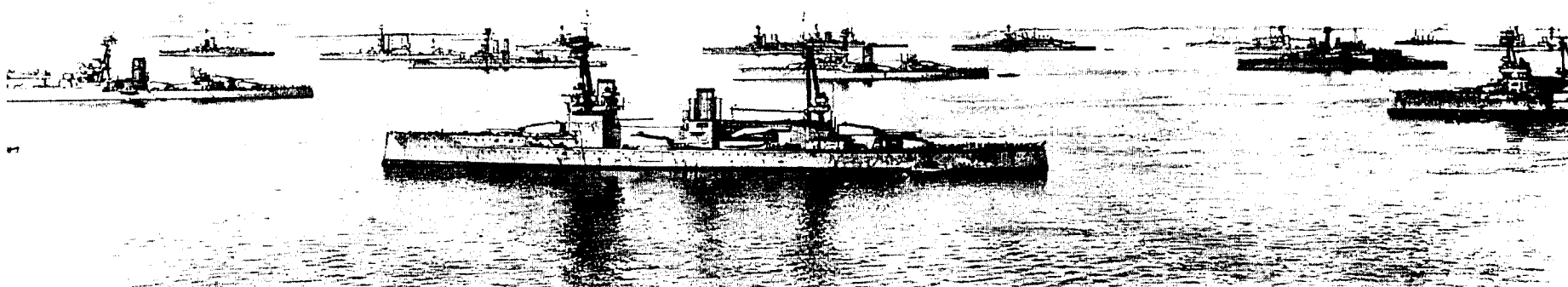


FIG. 1—THE GRAND FLEET AT SCAPA FLOW, 1917

ROYAL SOVEREIGN	ROYAL OAK		GLORIOUS	BIRKENHEAD	Town class cruisers	
CANADA	ERIN	IRON DUKE		MARLBOROUGH	ACTIVE	
			ORION		AUSTRALIA	NEW ZEALAND
THUNDERER		NEPTUNE			MONARCH	ST. VINCENT