

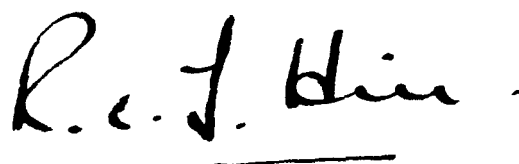


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FOREWORD BY THE CHIEF NAVAL ENGINEER OFFICER

The end of a decade, even more than the end of a single year, is a time when people take stock and make predictions. In the midst of changes on all sides, many of which were not foreseen, people have been more cautious than usual when looking ahead into the 1990s. In the field of naval engineering the most outstanding achievements of recent years have been by ships' staffs, and flight and air squadron staffs, in maintaining high levels of operational availability in the face of increasing shortages, difficulties and constraints. As CSO(E) to Commander-in-Chief Fleet, I saw these successes at first hand, and was filled with admiration. It is not difficult to predict the issues which will continue to be at the heart of business, but the outcomes are far from certain. People will continue to strive to gain the benefits of both teamwork and competition, trying to use each where it is most appropriate. As the New Management Strategy is introduced, the tug-of-war will intensify between those seeking to retain central control and those trying to gain and hold a measure of local autonomy. There will always seem to be too big a gulf between our high ambitions, and the austere budgets we are allowed to fulfil them. In the debate concerning costs of acquisition and costs of ownership it is possible to be more certain where we are heading. Throughout the last decade the emphasis has been on reducing costs of acquisition through competition in defence procurement. The time has now come to redress the balance and bring down the costs of ownership without sacrificing the Fleet's effectiveness or availability. There is clearly scope for this and it will yield great job satisfaction to many people to be part of the campaign. We must make it easier for engineering staffs in ships, squadrons and maintenance groups to use their skills and do their work, because this will give people much greater job satisfaction. It also makes economic sense, because it will benefit the quality and efficiency of the work itself. Providing the means for more on-board fault diagnosis and repair is a very good move in this direction. Ship manning levels are an important aspect of costs of owning and operating warships and an increasing national shortage of technically literate people will undoubtedly give us problems, but I am confident that the Navy's ability to attract and train such people will continue to be the envy of industry, who face the same situation. We will need to learn to use fewer people at sea, making greater use of automation, built-in self-testing, and pre-programmed decision taking without human intervention. Furthermore, and as preached for many years, we must design for more reliability and less maintenance.

In the face of these pressures and requirements the skills of everyone involved in naval engineering will be more important and in greater demand than ever before. To succeed in our work and go from strength we must set out to satisfy our customers whoever and wherever they are, and continue to put high standards and high quality at the top of our list of priorities. Above all we can take great pride in belonging to the branch and the profession which Makes Things Work.



R. C. J. Hin