THE INTELLIGENT CUSTOMER

BY

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ABSTRACT

The article discusses the importance of the MoD's role as an Intelligent Customer and the threats to maintaining this status as continued restructuring and cuts gradually erode expertise across a number of areas.

Introduction

The aim of the article is to discuss why it is so vital that the Royal Navy should maintain its status as an Intelligent Customer. This will be done by:

- Offering a definition of the term.

Discussing:

- The requirement to be an Intelligent Customer.
- Some of the functions and qualifications needed.
- The risks, now ever more evident, in maintaining the status.
- What must be done to preserve the status.

Definition

What exactly is meant by an 'Intelligent Customer'? It would appear that there is not any formal, generally agreed definition of the term so, to provide a basis for this article, the following is offered:

"An Intelligent Customer is an individual or group that has the ability to specify a requirement in pursuance of a corporate objective and then to ensure delivery to an agreed standard and within the allocated timescale and budget."

There are obviously many more facets to this than can be encapsulated in one statement and these will be discussed later.

Requirement for an Intelligent Customer

The Royal Navy is a unique and increasingly highly technical business. If it is to remain in the top league, alongside the US Navy and leading our European partners, it is essential that the nation retains the expertise to keep abreast of technological advances and shape future changes. Compared with 10 to 15 years ago, vastly reduced internal resources are now available to support this task and more and more functions have been contracted out. On top of this, the dwindling defence budget places an ever more demanding burden to achieve value for money, so a detailed understanding of the business is necessary to wring greater efficiency from industry.

As the Navy gradually becomes a less significant customer in many areas of the market place, an ability to influence the defence contractors is increasingly important. It is vital to retain expertise in fields, where the RN seeks unique technical applications, that might form only a relatively small proportion of a company's business. This is already happening in many marine engineering applications, with the complex field of gearing being a good example. When

problems occur, such as recently with the pinion misalignment in the TRAFALGAR class gearboxes, industry now relies heavily on MoD specialists to help formulate the complex technical solutions vital to keeping the fleet moving.

On the other side, a counter-argument sometimes deployed is:

> "Why not contract out the role of Intelligent Customer and utilize industry's deeper expertise—after all, industry is much better at it than us".

Quite simply this is not the case. It misses the fundamental point of needing to be able to look after the Royal Navy's interests, particularly where there is no guarantee that industry will retain its expertise. Commercial pressures dictate that no company will keep expertise that cannot be utilized fully. It must never be forgotten that business exists to make profits and, with margins cut to the bone by competition, business will seek to exploit weaknesses in the customer at every opportunity. It is up to the Navy to ensure that what is eventually delivered is fully fit for purpose. Current experience also shows that the contracting out of functions can be expensive and there are already moves in the PE restructuring to bring certain tasks back in house.

An intelligent application of engineering judgement can also have significant operational benefits. For instance, during a recent problem with the SEA KING tail rotor drive shaft, the Design Authority (the original manufacturer), wanted to introduce a major realignment to very high tolerances . This would have meant grounding the entire SEA KING fleet. However, the Defence Helicopter Support Authority, as the Engineering Authority with highly experienced in-service engineers, successfully challenged the need for such a radical solution and as a result managed to keep the helicopters operational, whilst remedial measures were implemented. Similar examples can be found readily in all areas where 'intelligent advice' from HQ has kept units in action. Unintelligent and inexperienced advice is far more likely to take the safe course.

An example of where the Navy has come badly unstuck by not being an Intelligent Customer, is with the Radar 996. It is an early example of the largely hands and eyes off approach of the era of Cardinal Point Specifications. These attempted to delegate most aspects of the design to the contractor, and thereby supposedly transfer the risk from the MoD to industry. Quite clearly, this has not worked: five years after entering service, it has now been concluded that 996 cannot meet its operational requirement and remedial action will take at least another 5 years. Meanwhile the financial and operational cost of this policy to the MoD is still mounting—a salutary lesson.

Functions of the Intelligent Customer

Perhaps a prime function is to be able to provide a taut statement of the requirement, with reference to the appropriate standards and with due understanding of the unique constraints imposed by the operational environment. After all, how can the Navy expect to get what it wants, if as the customer it cannot state precisely what the contractor is expected to deliver. It sounds straightforward, but it can only be restated how difficult this is to achieve and how often it is not. It is vital to get the specification right first time, since subsequent changes play directly into the hands of the contractors and inflate the final price of the product several fold.

Having stated the requirement, it is essential to have an understanding of the technology in use, and the market conditions that are prevalent at the time, in order to undertake a meaningful investment appraisal of any response to an invitation to tender. This is necessary to assess:

- Compliance with the requirement.
- The risk if new technology is being proposed.
- The impact of inevitable compromises on performance and cost.

Having maintained a close liaison during development to resolve the inevitable problems, it is necessary to ensure the product is completely 'fit for purpose' utilizing objective and unambiguous acceptance criteria.

There is now much greater emphasis on encouraging industry to introduce changes to reduce Through Life Costs, but this will certainly not help company profits. An example is the current work to extend the TYNE running hours before exchange, which has been driven energetically by the Gas Turbine section within DGFS(ES). This will save £4 million per year from reduced overhauls. Needless to say the savings are at the expense of the company holding the overhaul contract—they can hardly be expected to come up with these initiatives themselves. The same is happening with diesels where we are now insisting on a 3:1 saving before any proposed modification will be considered. In this way the Navy is driving its own business rather than being dictated to by the contractors. But to be successful, we must have the in-house expertise to be able to challenge the manufacturers' claims.

Safety now plays an ever more important part in our business, where there is increasing pressure for the MoD to conform to European legislation. Taking munitions as an example, the MoD must satisfy itself that the product will be safe under operational conditions as well as during storage and transport, whilst still functioning as designed when required. It is not much use relying on the statute book when a ship has been lost or members of the ships company killed as a result of a malfunction. The expertise required to fulfill this is increasingly important as more weapons are procured from overseas suppliers, where safety standards are not the same and may not be so rigorous, and nor may full documentation be available. HARPOON, TRIDENT and TOMAHAWK are prime examples, not to mention conventional ammunition from foreign sources. It would be criminally negligent for the Navy to allow its standards to slip at all in this vital area of safety.

The discipline of commodity management is another area where the ability to act as an Intelligent Customer can reap huge financial savings. The formation of DGFS(ES) and the bringing together of commodity management and engineering staff under one umbrella, has significantly improved the liaison between the 2 groups with the result that there is much better visibility of the spares repair loop and the identification of critical spares. Already the recognition of significant overstocking of spares is leading to much reduced Long Term Costing bids and a much more rigorous evaluation of Initial Provisioning levels for new equipments. Without a doubt, industry has taken advantage of the MoD's inability to question stock levels and sold far more insurance cover than was needed.

There are many other aspects to being an Intelligent Customer. Early recognition of emerging international environmental legislation, such as MARPOL, is but one, where planning ahead is vital. This is a burgeoning area which will cost us dearly unless we anticipate it and persuade industry to produce environmentally friendly equipments—they certainly will not do it on their own.

Qualifications for an Intelligent Customer

What are the qualifications to be an Intelligent Customer? These can be summarised as:

- A good background knowledge of a range of engineering disciplines such as mechanical, electrical or electronic, together with guaranteed access to in-depth understanding of the relevant specialist discipline.
- The principles of Integrated Logistic Support must be understood which, together with commodity management expertise, will enable the support costs to be kept firmly under control.
- A knowledge of procurement procedures, including contracts and finance is also essential and, increasingly, an awareness of company law.

- It goes without saying that this must all be shaped by strong operational experience.

This may be considered a tall order, but coordinating this expertise into coherent, Multi Disciplinary Groups (MDG) creates a very powerful business unit which can match industry and ensure the best possible value for money.

Threat to Intelligent Customer status

To varying degrees, the basis of these MDGs is in existence in a number of areas, but their effectiveness is under threat. Not a direct threat perhaps, but an insidious consequence of repeated manpower cutbacks. These are inevitable, but if they are not carefully coordinated, there is a risk of dropping below the critical mass essential to maintain a pool of expertise. Obviously the luxury of duplicated expertise between the Naval Support Command (NSC) and MoD(PE) cannot be afforded and specialists must be concentrated in one area or the other, but must be available to both.

Serving personnel might be expected to say that maintaining an adequate ratio of uniformed personnel in both the PE and NSC is essential to keep the operational perspective and to ensure that our products are fit for purpose in a specialist environment. The exact ratio of service and civilian manpower needs very careful thought—dogmatic substitution of 'cheaper' civilians for 'expensive' uniformed personnel could be very counter productive.

Coupled with a reduced number of servicemen is a gradual loss of naval experience within the MoD. This includes the formation of the broad based Defence Engineering Service at the expense of the deep expertise of the RCNC. The dramatic decline in the numbers employed in the dockyards, previously a vital seedbed for engineering specialists in HQ, has had a noticeable effect in the technical areas. Similarly, the consequences of the reduction in MoD sponsored apprentice training schemes over recent years is beginning to be felt. It is important that our training programmes are reviewed, to ensure that the gaps left are plugged by new training to meet today's requirements.

The concept of Prime Contractors for platforms and Contractor Logistic Support for equipments also poses a threat to maintenance of the Intelligent Customer role. With the hands off approach that this would entail, the NSC would gradually be divested of its expertise. This may well be the way the Navy needs to go in certain equipment fields, but this must be a conscious and reasoned decision balanced against the strategic implications of a loss of in-house expertise in any particular area. The current initiative to evaluate a proposal for Contractor Logistic Support of submarine periscopes raises just these issues.

Conclusion

Over the last few years the MoD has been subject to some severe cuts. However this is nothing compared to the cataclysmic downsizing, rationalising, streamlining and delayering that industry has been through. In most cases the end result has been that management is tough and realistic, the workforce is well motivated and hard working and there has been a significant investment in modern business methods, (Total Quality Management etc.), and new technology, especially computer driven machine tools.

Because the defence market, through no fault of industry, is disappearing under our very noses—certain vital skills are being shed or have already gone (especially in marine engineering). In short, it is a potentially bleak prospect and there should be no misunderstanding that the Royal Navy's UK industrial base is under real threat.

If the Royal Navy wishes to remain a potent force, in the top league of navies, it must maintain its expertise in-house to both offset and help industry in its present fragile state to:

- Keep abreast of technological advances.
- Know what is expected of new equipments.
- Specify the requirement unambiguously.
- Monitor development and acceptance to ensure that the product is fully 'fit for purpose' and entirely safe.
- Ensure that the Navy gets real value for money.

Therefore, as the NSC is restructured and the inevitable manpower cuts are delivered, the risks of losing the vital in-house expertise, for all the reasons discussed above, must be carefully weighed. The market place is a rough, tough place and if the Royal Navy is to obtain value for money, its staff need to keep their wits about them.

In short, the Navy must retain properly resourced 'centres of expertise' in essential and often unique military disciplines. It is vital to cherish and protect our long held and greatly respected status as an 'Intelligent Customer'. In essence, the 'Front Line' extends deep into the NSC.