CHAPTER 48

MONITOR/CONTROL OF SUBCONTRACTORS/SUPPLIERS

CONTENT

1. INTRODUCTION

The monitoring and control of subcontractors and suppliers is of vital importance in the development of reliable and maintainable equipment and systems, as high reliability and maintainability can only be achieved if the same standards that the overall supplier sets for himself are applied to all of the subcontractors and suppliers.

2. SCOPE OF MONITORING/CONTROLLING SUBCONTRACTOR/ SUPPLIERS

The prime contractor bears the responsibility for the reliability and maintainability of the whole system, and should ensure that the supplier or subcontractor is capable of producing the desired levels of reliability and maintainability. The prime contractor should negotiate terms with the subcontractor such that he can monitor subcontractor reliability and maintainability planning, progress and achievement, and can show the purchaser the steps taken to confirm the reliability and maintainability of the item, as well as, produce evidence to support their claim. The prime contractor should state the requirements completely and unambiguously, and include all environmental, operational and maintenance factors. It is essential that all of the relevant information concerning the operation and deployment of the intended equipment or system is made available to the supplier or subcontractor.

3. MINIMUM REQUIREMENTS

3.1 The ability to monitor and control the reliability and maintainability of a product produced by a supplier or subcontractor is dependent upon the terms negotiated between supplier or subcontractor and the prime contractor. It is the responsibility of the prime contractor to ensure that the supplier or subcontractor is capable of producing the desired level of reliability and maintainability; and that the prime contractor is able to monitor the reliability and maintainability of the product. This monitoring process does not need to be complex, and should be adapted to suit the complexity and criticality of the product, however, it is essential that the prime contractor to the purchaser, through progressive assurance and the R&M Case, see Def Stan 00-40, Part 1, the steps taken to confirm the reliability and maintainability of the supplied products, and produce evidence to support the claim.

3.2 The following should be considered as the minimum of best practice:

a) Where the subcontractor is developing a new product a reliability and maintainability plan should be provided, and the prime contractor should monitor the progress made during development against this plan.

b) Acceptance tests needs to be applicable at the end of development, or when the product is delivered to the prime contractor, to confirm its reliability and maintainability prior to incorporation into the host equipment.

c) Equipment supplied “off-the-shelf” to the prime contractor, batch acceptance tests may be a suitable method to test for reliability; however a single test may be sufficient to confirm the maintainability of the product.

3.3 It is likely that when dealing with suppliers or subcontractors the apportioned level of reliability for their supplied product or component will be high. This is frequently a result of the prime contractor managing risk to ensure the suppliers or subcontractors deliver to contract or shedding risk on the development and manufacture of equipment and/or assemblies for which they have responsible. This may lead to impractical trials or test programme durations if the normal reliability testing criteria's were to be applied. It is the responsibility of the prime contractor to ensure and justify through the R&M Case that all tests or trials are practical and will yield usable results, or to ensure that the product's reliability is acceptable by other methods.