

Marine Environment Survivability and Habitability (MESH)

Introduction

- MESH is a DLO IPT. Its overall business structure is based on the concept of Equipment Project Teams (EPTs) which undertake the core work of the IPT outputs. Each EPT includes the professional specialist skills of engineering and commodity that are supported by financial and commercial staff, nominally integrated under common leadership [delete and line management.]
- MESH CBRN (Chemical Biological Radiological Nuclear) have the design authority responsibility for NBC (Nuclear Biological Chemical) Filtration and associated equipments.
- NBC (Nuclear Biological Chemical) Filtration EPT has successfully implemented a novel, consolidated approach to contracting, HESS.

Commercial

- MESH IPT previously had several hundred suppliers and many different contracts with all of these suppliers (sometimes many contracts just with one supplier). This left room for improvement under Smart Acquisition initiatives.
- The Holistic Equipment Support Strategy (HESS) competitive contracting approach for NBC filters resulted in a single consolidated contract providing a comprehensive support package. The Contract was consolidated out of 15 original contracts to improve efficiency of their management. It is expected to produce efficiency gains within the IPT, savings of more than £10 million over the 10 yr life of the contracts and allow staff reductions over time. Other DLO IPTs are now adopting HESS principles.

Procurement Strategy

- The NBC team delivered the first HESS contract in April 2004 using the following methodology leading up to the contracting process:
 - Develop a comprehensive baseline cost model. This embraces all MESH IPT costs relevant to the proposed contracting strategy. In addition, external costs associated with filtration support have also been captured; these include Waterfront Costs (procurement repair UBE services, DLO costs (transport, storage) and delete [MXS]) the costs of military packing. Costs are projected over a ten year period using predicted activity and inflation calculations.
 - Decide the boundaries of the contract. Attempts are made to try to extend boundaries as much as possible. Bigger work packages enable economies of scale to reduce costs.
 - Produce an outline scope of work for in service support (i.e. project management, manufacture, repair etc.)
 - Contracts Bulletin and OJEU. Announce possible future purchases DLO wish to place.
 - Hold HESS Development Meetings – taking a view from industry and of many stakeholders which are identified early on.
 -

Supply Chain

- Platform IPTs (PIPTs) are consistently paying a high premium (>33%) to waterfront contractors for the replacement of NBC replacement filters during upkeep programmes. MESH CBRN has little or no visibility of this work, creating a disjoint in the logistic management of the filters for both procurement and repair. Overall management of filter repair and new procurement has previously been sub-optimal.
- Repair turnaround times (RTRT) are also considered to be sub-optimum due to a complex and protracted repair return process.

- The contract now provides MESH CBRN EPT with a single point Prime Vendor in order to establish a Filtration Support Partnering Arrangement that covers both MESH CBRN NBC filtration activity and the PIPTs waterfront activity (except for fitting and testing of filters). This enabling arrangement is for 10 years and covers:
 - Post Design Services
 - Repair
 - Procurement
 - In service support – PDS activities
 - Asset management to include storage and packaging of both repairable and A1 stock.

Engaging Suppliers

- Where potential suppliers who attend an industry day do not feel they are able to tender to be Prime contractor, DLO encourage teaming. In this way, contact details are shared between contractors and smaller firms are encouraged to Team and make enquiries with a view to becoming a supplier to a prime contractor
- During the contracting process, the HESS model uses the Invitation to Negotiate (ITN) mechanism. This approach, normally only used on PFI projects, enables co-development of the User Requirement Document (as well as the solution) which is deemed beneficial to the development of the contract and enables the optimum solution to be identified.
- ITN can be a time consuming process compared to the Invitation to Tender (ITT) approach under which DLO are comparing like with like, in terms of the requirement to be met, by tenders received. A more intensive process of liaising with potential suppliers is required for ideal operation of the ITN process.

Performance Management

- For DLO to achieve their goals of reduced costs and better support for the front line, they need to move from traditional support and service contracts to longer-term contracting for availability or capability. The result will be greater responsibility placed upon industry for through-life support, with the DLO retaining the key decision-making role. DLO will move from being a 'provider' to an intelligent 'decider'. HESS is a successful example of this approach.
- The intention was to put more work out to industry - and applies particularly to Project Management which was previously performed in house. This is a prime example of the 'provider' role going to industry. This should lead to savings and better support to the fleet. HESS has been presented to industry with the idea being favourably received.
- Savings of over £10Mmillion are anticipated over the 10 year contract period. Quality, Logistics, Innovation and Management benefits which underpin these savings would include:
 - Optimising the in-service life of the filters.
 - Reducing the RTRT by introducing a shorter repair loop (i.e. removal of external agencies).
 - Selected Prime to maintain asset database providing management information on future programmed requirements (this is currently a MESH responsibility).
 - Regular reviews of Performance Indicators to monitor and validate performance.
 - The Partnering Arrangement will provide for an equal gain-share below the agreed target cost.
- The cost of ownership (COO) model tells the IPT how much they can spend. NBC Filters spend around £3.5 to £4 million per year. Prior to the contract being let, the IPT had a 20% cut imposed, which delete [it met] for NBC filters within the eventual contract Maximum Price. Performance under the contract to date has resulted in final prices well below the Maximum Price and therefore demonstrates that HESS has delivered savings to date of 30%.

- There were 15 associated contracts for the commercial department to manage, each having their own terms and conditions. HESS delivers a single point provider for a comprehensive range of services through one holistic contract.
- HESS concentrates valuable in-house resources on key performance indicators which have been incentivised to ensure that the required levels of support are delivered.
- MoD agencies currently assess disposal or repair action for all removed filters. This decision is frequently made without the required level of technical knowledge to ascertain remaining repairable filter life details. HESS will ensure that all assets are properly assessed by the Prime contractor for disposal in a manner that is commensurate with the required level of support to optimise repairable stock to meet the KPIs.
- There is also a Health & Safety benefit. The Prime HESS contractor is the sole disposal agent which ensures the controlled disposal is effected using the H&S protocol for chemically impregnated carbon.
- MESH commodity and Waterfront contractors raise discreet ad-hoc contracts for procurement and repair activity.
- Waterfront contractors' new procurement costs are 33% higher than MESH procurement costs. The cost of using filters newly procured by Waterfront contractors (versus OEM unit price, excluding overhead charges) is significantly higher than would be the case if refurbished items were available, resulting in sub-optimisation of stock.
- Under the HESS contracting strategy, the physical supply chain is significantly simplified with a single point prime vendor taking overall responsibility for total asset management.