Best in Class.
Best in Class
Medical Treatment Facilities

The Background
Recent military operations have demonstrated the need for medical treatment facilities to have both an expeditionary capability to support interventions and an enduring capability to support continuation operations. To meet this need the UK MOD defined a requirement for an expeditionary hospital capable of providing medical care as close as possible to National Health Service standards.

To solve the problem UK MOD turned to Marshall Aerospace and Defence Group, one of the UK’s largest privately owned defence company, a company with a wealth of systems engineering and through life support experience.

Partnership
Working closely together, the MOD and Marshall determined the precise needs of a modern field hospital. This required both a detailed understanding of how care is delivered in the field and a system engineering approach. Together, these provided the understanding of the need for sophisticated infrastructure and facilities that are both reliable and safe, whilst addressing the shortfalls of the existing hospital infrastructure.

Using our class leading systems engineering capabilities and our supply chain management skills we have delivered what is thought to be the most sophisticated deployable military medical treatment facility in NATO.

The Hospital
Marshall has provided a modular Role 3 hospital, complete with all the departments expected of a conventional trauma hospital, including: resuscitation, operating theatre, intensive care wards, advanced diagnostics such as CT Scanner, together with the necessary infrastructure such as recovery wards, sterilisation, pharmacy and laboratory facilities. The hospital has full environmental control to maintain the optimum temperature and humidity within a wide range of external climatic conditions.

Marshall’s generic Field Hospital System Architecture is flexible, modular and scalable using a mix of military off-the-shelf (MOTS) hard and soft shelters (containers and tents). It uses common modules with standard interfaces allowing adaptable configurations to suit mission needs. This approach will give the UK MOD the ability to deploy part of the hospital by air to provide potential rapid deployment of an initial medical capability with the full capability following as the force build up develops. The modularity also enables the UK to expand the facility, adapt layouts or change configurations as medical technology and needs develop in the future. The system architecture has also allowed the full integration of power, water and other sub-systems for the first time.

Teamwork at its best
During the project we have demonstrated our capability in prime contracting complex programmes, systems integration, supply chain management, system requirements capture, concept development, systems design, training and through life support. Added to this has been the teaming work with UK MOD, all of which has proved to be a route to success.

The MOD Senior Responsible Officer commented at the end of the programme that, “This project has demonstrated all that is best in teamwork with the MOD and industry working extremely closely together to deliver a truly world leading facility which I am proud to be associated with.”

Innovation and Excellence in Engineering, Support Solutions and Services.

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