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The UK military tendering process ● ●

In 2015, the UK Government launched a ten-year Defence Equipment Plan worth almost £160 billion, resulting in the Ministry of Defence (MoD) offering thousands of new contract opportunities to military equipment manufacturers. With all of these opportunities available, it is essential that manufacturers understand how to present their products to the MOD. Here David Reeves, Director of International Business Development of global battery manufacturer Ultralife, explains the military tendering process.

Across the world, defence departments have processes in place to ensure that contracts for military projects are widely available. The UK MoD has recently pledged to increase the transparency of contract information and ensure that a quarter of all defence spend goes to small and medium-sized businesses by 2020.

For military equipment manufacturers, it is helpful to know how contracts are awarded. The MoD advertises tender and contract opportunities valued at over £10,000 on its Contracts Finder portal. However, for projects under £10,000 — or when there is an urgent operational requirement (UOR) — military procurement teams are not required to put out an invitation to tender and can approach manufacturers directly.

Where there is an urgent need for a product due to an unexpected increase in military action or when a product is destroyed, the MoD will go to approved contractors directly. This means that by building a relationship with MoD buyers, companies stand a better chance of being chosen for these projects.

The type of project also directly influences the tendering process. While some contracts may specify a simple military off-the-shelf (MOTS) or commercial off-the-shelf (COTS) product, meaning that companies can simply supply the required quantity of products, others are much more bespoke. Some projects require a long period of consultation and the development of a number of products for the implementation of a new project.

Managing effective delivery

In the military sector, prime contractors often win contracts from the MOD, who then sub-contract some of the work to original equipment manufacturers (OEMs). Prime contractors are often

specialised defence companies, who have a wealth of resources and contacts at hand to fulfil a project.

Prime contractors have the experience to manage the effective delivery of large-scale projects. They must be flexible enough to keep up with new developments in the military equipment industry, yet remain stable and reliable for government departments to rely on. Prime contractors also have large logistics and delivery networks, meaning they can provide products wherever they are required, especially in the case of an urgent operational requirement.

Most manufacturers of military equipment will fall into the second tier of the tendering process as suppliers to prime contractors. Many companies make components for each piece of equipment, rather than the whole piece itself. For example, Ultralife works with OEMs to share its expertise in batteries. Often, prime contractors will be aware of the battery market as a whole and new advances in technologies. They will then come to us to see if this is commercially viable.

Alternatively, as prime contractors are often unaware of the specialisms of each component, specialist OEMs can alternatively suggest valued propositions for them to improve their offering. Through extensive research and development, companies can stay ahead of their competitors by doing this, as it positions the company as the leading expert in their field.

Prime contractors rely on OEMs for the safety of their products. Specialised companies tend to have extensive testing facilities in the area that they design for, meaning that they can provide accurate estimates of how the product will perform in the field.

Because the projects that prime contractors carry out often take place over a number of years, they often need to take into

account the after-sales service and warranties that OEMs provide. Ultralife has overcome this concern by providing a through-life management plan. We will carry out services, provide warranties and performance upgrades when they become available. Therefore, component manufacturers should think of the longevity of their product when they sell to the military industry, as this could set them apart from the competition.

OEMs can also help with the integration of human factors into a project and balance the practicalities against the design of the device. For example, if the military asked for a particular piece of equipment in a vehicle, the OEM will consider how far the soldier can reach, whether they will be wearing gloves, which may impede their tactile ability or if the antenna may need to be flexible if it goes through a wooded area.

Becoming indispensable

At Ultralife, our years of experience in the creation of off-the-shelf goods for military use, combined with the serving experience of some of our staff, means that we know what works from both a design point of view and in the field. For example, we supplied Smart batteries into the MOD's Bowman tactical radio programme.

By following these steps, component manufacturers can make themselves indispensable to prime contractors and, in turn, supply goods into the MoD. With increasing transparency and a wide range of contracts now available, as well as a growing push towards SMEs delivering goods, manufacturers should not miss out on the opportunities offered in the military sector. **GMC**



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Rockwell Collins to modernize military test ranges

The US Department of Defense (DoD) has awarded Rockwell Collins a \$21 million contract to support the second production lot of the Common Range Integrated Instrumentation System (CRIIS) for upgrading Air Force, Navy and Army test ranges.

The next-generation test range instrumentation system will replace legacy range systems including Advanced Range Data System (ARDS) and Air-to-Air Range Infrastructure (AARI) systems in use at major US military ranges. This second production lot will help complete range installations and activations at Eglin Air Force Base (AFB), Edwards AFB, Naval Air Station (NAS) Patuxent River, White Sands Missile Range, Nellis AFB, Naval Air Weapons Station (NAWS) China Lake and NAS Point Mugu.

"With multi-level security and data link capabilities, the F-35 and other fighter aircraft will be able to perform several missions in a single day by transferring connectivity to multiple ranges versus a traditional test mission which consists of an exclusive base-to-aircraft data link," said Troy Brunk, Vice President and General Manager, Communication, Navigation and Electronic Warfare Solutions for Rockwell Collins. "CRIIS provides much needed technology to modernize our US military ranges."

For example, an F-35 stationed at Edwards AFB can take off in the morning, fly to White Sands Missile Range for range-specific testing and then continue on to Nellis AFB, NAWS China Lake, the sea range located at NAS Pt. Mugu and return to Edwards AFB at the end of the day all while transferring its data connection securely to each range system. The CRIIS system will support developmental and operational testing with the named test ranges, and is ready to support F-15, F-16, and F/A-18, F-22 and F-35 in live, virtual and constructive test scenarios.

The CRIIS program fulfills DoD's vision of common test and training infrastructure for improved operational realism by providing real-time tracking of air exercise participants up to approximately 350 nautical miles (line of sight plus relay); accurate time, space, position information under highly-dynamic aircraft conditions and an extended area control of air, land and sea participants. **GMC**



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