Target acquired

Boeing positions itself in an **emerging market** that's **helping warfighters** practice for tomorrow. **By Stacey Holloway**

At ranges around the world, the U.S. Defense Department is conducting critical testing and training events. The ranges offer realistic combat environments in which aircraft drop real bombs and soldiers fire live ammunition. These test and training events are essential in ensuring that weapon systems, equipment and warfighters are ready for tomorrow's missions.

The Defense Department is looking to industry to help update range equipment and provide innovative service solutions, and Boeing's Global Services & Support business is quickly positioning itself for entry into this new market. Its Training Systems & Services division is focused on the development and delivery of innovative new systems, while its Defense Government & Services division is committed to providing the right people and services.

Frontiers recently spoke with the two GS&S leaders who are at the forefront of this new frontier.

Mark McGraw, vice president of Training Systems & Services

Tell us about this new market—Range Test, Instrumentation and Training.

There are test and training ranges across the United States and really across the world, struggling with outdated technology, unique equipment and a lack of open computing architecture. High-performance modern aircraft such as the F/A-18 and F-35 require very precise positioning, and today's range equipment does not provide the necessary accuracy. Because of this, Boeing GS&S is taking a hard look at the needs of test and training ranges, and developing a common set of open-architecture systems that will sharply increase the capabilities at these facilities. These systems will handle everything from the dismounted soldier walking around the range to ground vehicles to a high-performance aircraft like the F-22. They will even have a ship-to-shore connector to tie in shipboard assets. Think of it like we are developing a family of positioning devices that rely on Global Positioning System navigation, data links to transfer GPS as well as other information from the person or platform, and recorders, in many cases, to record the data if you are not linking directly from the person or platform.

What technologies and capabilities are needed at ranges?

They need very accurate positioning equipment, new data-link capabilities—to really push through the large amount of data required to track everything on the range—as well as encryption because a lot of these new high-performance aircraft do not want their information being broadcast openly. Miniaturization is

PHOTO ILLUSTRATION: Operations at a live test, training and instrumentation range are shown in this artist's rendition. These ranges provide a real-world environment for air- and ground-based military activities. SCOTT GIRARD/BOEING, NATHAN PIONKE/BOEING

also important because you want to be able to integrate these systems easily onto the airplane, ground vehicle or dismounted soldier. For training, similar technologies are required. Accuracies aren't as important; however, tracking and recording remains crucial so that participants are able to see what they did right or wrong, allowing for more effective training.

Why is Boeing well-positioned for the range market?

This is the right fit for Boeing because we build a lot of the platforms involved at test ranges, have a lot of people working at test ranges, and possess a vast amount of expertise in training.

Greg Deiter, vice president of Defense & Government Services

Tell us about Defense & Government Services.

The division focuses on services to our customers using a competitive cost structure and access to the Best of Boeing. This is a key part in Boeing's strategy to compete and win new, innovative opportunities that are nontraditional and not related to Boeing airplane platforms. We have several core business capabilities in information services; infrastructure support services; range services; intelligence, surveillance and reconnaissance services; and contractor logistic support services.

Boeing has decided to enter a new market—range services. Tell us about it.

Boeing's Range and Technical Services organization provides a complete array of launch and range operations and technical support services. Programs currently supported are Ground-based Mid-course Defense sustainment, Future Combat support and Secure Border Initiative network support. We also ensure the readiness of the nation's Intercontinental Ballistic Missile Wing. We are expanding into the broader range-services market by using a proven systems approach to support the customer's consolidation and modernization of ranges. To do this, we use Boeing's test and training expertise as well as complex systems integration experience. The "$50 billion over the next five years" market is attractive, profitable and growing.

What is Boeing doing to win these programs?

We are bringing the Best of Boeing in areas of large-scale system integration; Jeppesen scheduling and other tools; situational awareness; air traffic management; surveillance and security; multilevel information technology security; data mining and knowledge management; and live, virtual, constructive training. ■

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