

Quick Kill system to protect Army Stryker

By Kris Osborn - Staff writer

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Raytheon's Quick Kill Active Protection System will be fitted onto an Army Stryker vehicle for the first time this summer, say Raytheon and Army officials.

Quick Kill is designed to detect, track and bring down incoming rocket-propelled grenades, missiles and other weapons. The APS is being developed for the Army's Future Combat Systems under a February 2006 deal between Raytheon and Boeing, which with SAIC is the FCS lead systems integrator.

Quick Kill will rely on Multi-Function Radio Frequency System radars, the first two of which were delivered to the Army this month, Raytheon spokesman David Albritton said June 1. The MFRFS radar distinguishes what kind of weapon is coming in and how best to shoot it down. For example, Quick Kill might launch a longer-range projectile to intercept kinetic energy rounds, further away from the vehicle, they said.

"As an electronically scanned solid-state phased-array with fixed antennas, the radar can look at the whole hemisphere all the time," said another Raytheon spokesman.

The Quick Kill system is planned for the FCS Man-Ground Vehicles, new 27-ton armored vehicles to be fielded by 2015. In the meantime, while the MGVs are being built, Quick Kill will be outfitted on Abrams tanks, Strykers and Bradleys. The upcoming test, to take place this summer at Redstone Arsenal, Ala., will include system engineering demonstrations as well as live-fire test-intercepts. So far, the Quick Kill system has undergone a variety of test intercepts against live RPGs using a surrogate platform in Socorro, N.M., and Huntsville, Ala., since 2005.

Raytheon officials and Army proponents of the Quick Kill system say its vertical launch trajectory provides a 360-degree, hemispheric bubble of protection.

"If you have an overhead shot, then it [Quick Kill] will shoot up. We fire a vertical-launch countermeasure using a soft-launch mechanism similar to an air-bag gas generator. A single round can address a threat from any direction," said the second Raytheon.

Raytheon officials said competing protection systems fire many horizontal, or broadside shots at one target. As a result, some of the defensive projectiles miss the incoming weapon and continue on their path, posing a danger to innocent passersby, say Raytheon and Army programmers.

"The approach we take is to put the interceptor into the air and propel it down to an intercept point, so ours tends to move the incoming projectile toward the ground. The design is one shot, one kill," the second Raytheon spokesman said.

Also, Raytheon officials said Quick Kill could be fitted onto lighter thin-skinned vehicles such as cargo and utility trucks.

"We have looked at that and it is scalable," the spokesman said.