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Raytheon's NCADE Missile: New Wine, Old Bottle for Missile Defense

By GAYLE S. PUTRICH, PARIS

While the Pentagon's Missile Defense Agency (MDA) continues to spend billions year after year, Massachusetts-based Raytheon is working up a short-term fix for MDA's woes, fitting out Advanced Medium-Range Air-to-Air (AMRAAM) missile airframes to work as a boost-and-ascent phase interceptor.

Dubbed the Network Centric Airborne Defense Element (NCADE), the missile will look and weigh the same as the ubiquitous 350-pound AMRAAM but contain a second-stage liquid propulsion system and infrared seeker.

Raytheon Missile Systems execs said MDA is interested and is working with the Pentagon and the company to demonstrate the NCADE's ability to move from using the trailing heat signature of an enemy ballistic missile for tracking to actually targeting and destroying the body of it.

The infrared heat-seeking guidance system, which is "already on a number of our missiles," has been worked over in simulation. Actual flight tests will take place later this summer using a "vanilla air-to-air" target, said Mike Booen, product line vice president for advanced missile defense and directed energy weapons, here at the Paris Air Show.

Booen said the appeal of the weapon lies largely in the ability to rapidly field it, as two-thirds of the components are already coming down Raytheon's production lines. The only newly manufactured section of the NCADE will be the propulsion system being designed by Aerojet.

The estimated price tag of under a \$1 million each is pretty appealing, too, he said.

"It's a very, very cost-efficient system. We wouldn't put that price tag on it if it wasn't true," Booen said. For the U.S. and other countries already using the AMRAAM, there would be little to no infrastructure investment needed because the missiles could be fired from any existing AMRAAM platform, a move Booen said was 100 percent by design.

"We're an engineering company that builds hardware," Booen said. "This is completely in the Raytheon wheelhouse."