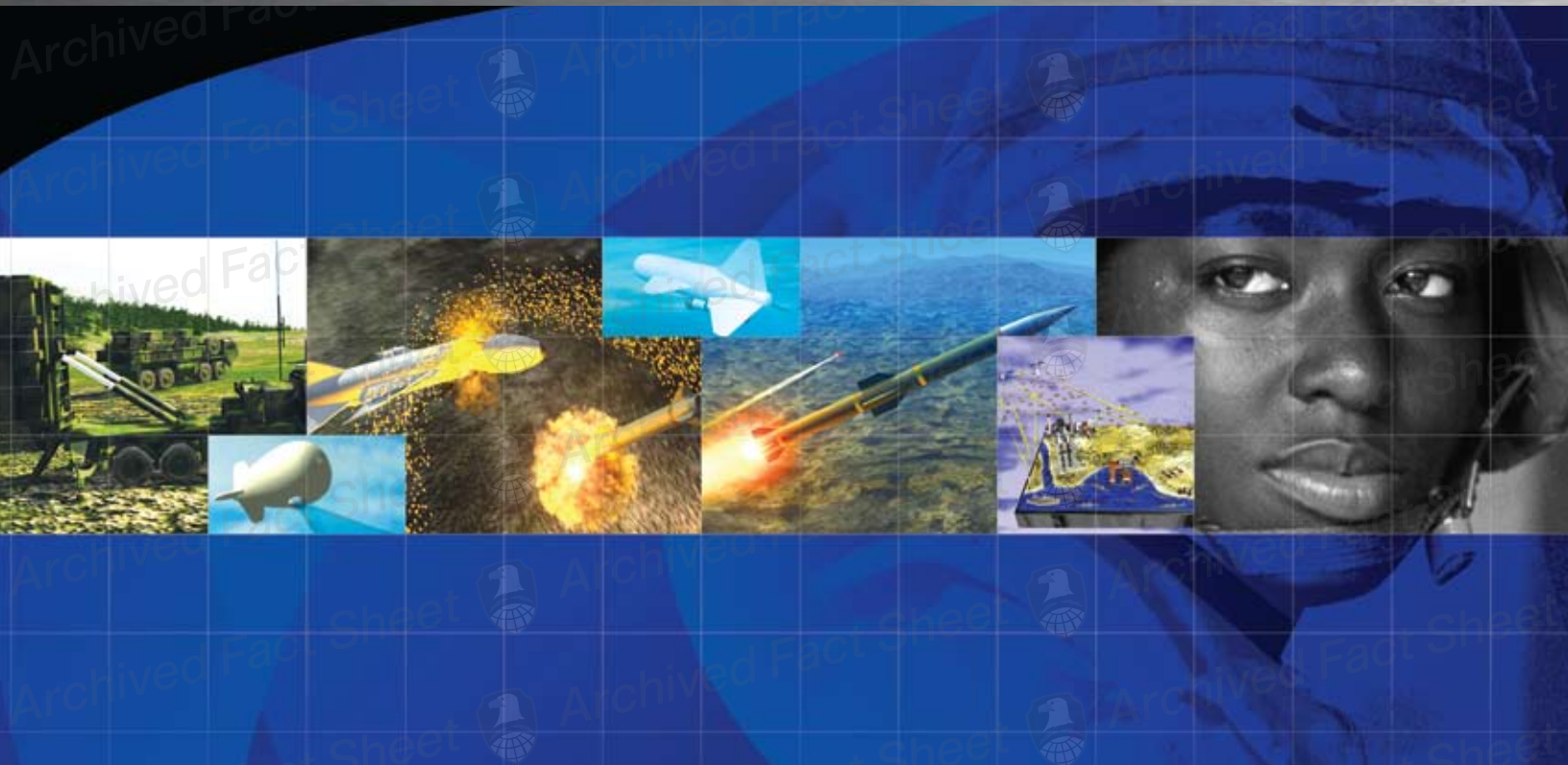




# LCCMD/LCI

Low Cost Cruise Missile Defense Initiative/  
Low Cost Interceptor Technology Integration Demonstration Program



### Summary

- Low cost (goal is less than \$100,000 in FY00 manufactured cost)
- Long range (approximately 150 km)
- Balance cost per kill against the less sophisticated threat
- Complementary with current and future air defense capabilities

### Air Defense against the less sophisticated air-breathing threats.

The Low Cost Cruise Missile Defense Initiative/Low Cost Interceptor Technology Integration Demonstration Program (LCCMD/LCI) is designed to play a critical role in current and future multi-layered Global Air and Missile Defense (GAMD) and integrated cruise missile defense warfighting concepts of operations. The program borrows from mature technologies in propulsion, seekers, missile guidance, and lethality to develop the prototype design. The LCI design will conduct fast, long-range engagements with high lethality, take advantage of Integrated Fire Control architectures, and cost approximately \$100,000 in FY00 manufacturing dollars. The program is currently conducting tests on individual subsystems to evaluate performance within the total interceptor design.

Cruise missile threats are asymmetric and include low-cost/low-technology systems, as well as expensive and sophisticated systems. Future defenses against these threats must embrace Global Air and Missile Defense (GAMD) goals of dominant maneuver, precision engagement, focused logistics, and full dimensional protection.

Current GAMD systems such as the Army Patriot PAC-3 are capable of defeating the entire spectrum of cruise missile and air-breathing threats. However, these current systems are very expensive, have limited inventories, and a poor cost-per-kill exchange ratio against the low-cost threat.

To counter this growing threat and provide a capability with a balanced cost-per-kill ratio, the U.S. Army Space and Missile Defense Command, Technical Interoperability and Matrix Center's Low Cost Cruise Missile Defense (LCCMD) Initiative has developed a prototype design for a Low Cost Interceptor (LCI) that borrows from existing technologies. This program has evaluated technologies in propulsion, seekers, missile guidance, and lethality to develop a design that will prove the feasibility of developing a fast, long-range interceptor that will cost less than \$100,000 in FY00 manufacturing dollars. The program is currently integrating components and conducting tests on individual subsystems to evaluate total interceptor performance.

The proof-of-concept LCI flight test program will consist of four flights. These tests will characterize the interceptor and demonstrate the concept. Several types of surrogate threat targets will be intercepted and destroyed, demonstrating the military utility to the warfighter.

LCI will be capable of supporting homeland defense and GAMD operations through its adaptation and integration in Navy coastal defense, North American Aerospace Defense Command's air defense, and Army air defense concepts. Defenders can use LCI to engage the bulk of the threat, which is low-cost/low-technology, while saving their "silver bullets" for use against the more sophisticated threats. This will provide a cost-effective solution to the proliferation of low-cost cruise missile and other air-breathing threats and have a complementary relationship as current systems transition to the Joint Force.

The LCCMD/LCI is designed to play a critical role in current and future multi-layered Homeland Defense and GAMD concepts of operations for cruise missile defense. This program will be executed to ensure consistency with Single Integrated Air Picture/Family of Interoperable Operating Pictures efforts and to maintain full compatibility with the future combat systems. It will provide full dimensional protection of vital national assets and infrastructure, provide precision engagement at long range, and have a reduced logistics trail. Congress has provided funding for LCCMD/LCI Program with the desire to deliver this warfighting capability.



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