

27 August 2004

## KE Description

BAE Systems is Prime Contractor to TARDEC for the Active Defense System (ADS) Program. In support of this contract, BAE Systems, Advanced Development Center is conducting a technology survey and trade analysis to determine the current availability of Counter Kinetic Energy (CKE) threat technology for integration with the Army Active Defense System (ADS).

This Request For Information (RFI) is part of BAE Systems' contract with TARDEC, and is intended to identify potential Offerors that have products and capabilities to arrive at system or subsystem materiel solutions for a counter kinetic energy (KE) threat technology (hereinafter referred to as the "CKE Technology").

This is NOT a pre-solicitation notice pursuant to FAR Part 5. This notice does not constitute an Invitation for Bid or Request for Proposal and is not to be construed as a commitment by the government or by BAE Systems.

The current active defense system program incorporates both hard kill and soft kill countermeasures for Chemical Energy (CE) threat defeat. For the purpose of this RFI survey, an active defense system is a system that physically interacts with a threat munition or munition delivery system in such a manner as to prevent the threat from destroying the protected vehicle. Examples of counter KE active defense technologies include integrated flyout interceptors incorporating blast and focused warheads as well as laser dazzlers. A typical hard kill active protection system detects and tracks incoming threat projectiles, then uses that threat information to compute a fire control solution. This fire control solution is used to direct the initiation of an integrated interceptor subsystem (interceptor). This interceptor flies out to an optimized intercept point, deploys a countermeasure payload, and interacts with the incoming threat in such a way that it is no longer sufficiently lethal to destroy the protected the vehicle. The vehicle will typically have 360 degree machine gun armor protection with frontal medium cannon protection. Any proposed integrated interceptor shall be propelled by a recoilless propulsion system, shall incorporate all sensors and controls necessary to achieve the desired threat/countermeasure interaction, and shall incorporate all necessary safety and control systems. Alternately, the active defense system may detect the presence of a Kinetic Energy Projectile (KEP) capable shooter and disrupt its ability to acquire a fire control solution through the employment of a soft kill countermeasure (e.g. laser dazzler).

The purpose of this survey is to determine what technology is available for near term incorporation of a counter KE capability within the existing ADS program. Interested firms should go to the TARDEC website at <http://www.tacom.army.mil/tardec/news006.htm> for the RFI. Your responses will assist in finalizing plans for this effort and allow better definition of requirements. [Information acquired from this technology survey will be used to help refine planning of further/future efforts.](#)

In addition, BAE Systems plans to conduct component evaluations during the period of September 2004 through July 2005 at a site(s) to be determined. Neither the Government nor BAE Systems will reimburse contractors for any costs incurred as a result of their participation in this RFI survey.

If offerors provide hardware/components for evaluation/testing, neither BAE Systems or the U.S. Government will be responsible for any damage or destruction to the hardware or components caused during handling/testing of the equipment. BAE Systems and the U.S. Government will employ due diligence in handling all hardware/components provided for consideration. The offerors are responsible for all expenses associated with shipping the hardware/components they want considered/evaluated to and from the testing location.

Submit survey documentation preferably by email to the POC below no later than 15 September 2004. All survey documentation must be in English. Proprietary data, if submitted, should be marked as such. BAE Systems is prepared to enter into proprietary information Non-Disclosure Agreements (NDA) with respondents. If any portion of the survey response is classified, contact the POC provided below for instructions. Documentation provided will not be returned.

Questions about this RFI should be directed to the applicable BAE Systems POC listed below.

Contractual questions, and the corresponding answers may be posted to:  
Lee "Pete" Peterson ([lee.peterson@baesystems.com](mailto:lee.peterson@baesystems.com)).

The United Defense technical Point of Contact is:  
Jeff Faul ([jeffrey.faul@baesystems.com](mailto:jeffrey.faul@baesystems.com)).

Email your questions to Pete Peterson at [lee.peterson@baesystems.com](mailto:lee.peterson@baesystems.com).