



U.S. Army Research, Development and Engineering Command

Integrated Defensive Aid Suites (IDAS)



TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

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Report Documentation Page

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Integrated Defensive Aid Suite



Purpose:

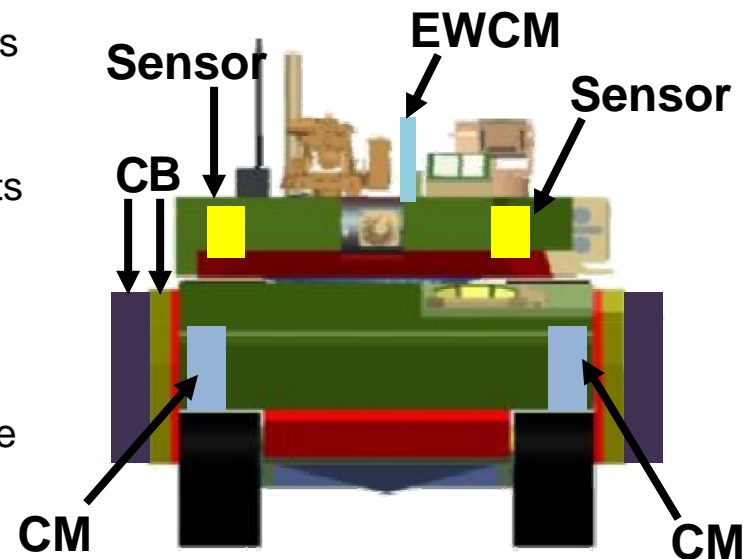
- Provide hit avoidance (hard-kill and soft-kill), vehicle integrated, system utilizing common architecture for RPG and ATGM defeat that increase the survivability of army ground vehicles
- Integrate armor into the technology suite; utilize strengths of AP countermeasures and armor
- Build the bench by developing SMEs and tools required for hit avoidance technology maturation and assessments

Requirements:

- IDAS program is planned and synchronized in order to meet customer requirements now and in the future.
- Implement the common architecture developed under the ARMED program

Products:

- Mature, vehicle integrated, hardkill / softkill Hit Avoidance system utilizing common architecture
- HA common architecture demonstrating component integration flexibility for additional systems
- Hardware in the loop test capability, softkill assessment capability, and SMEs with expertise to conduct experiments and assessments



B + C-kit + APS defeats KE, EFPs, **RPGs, ATGMs, tank fired threats** and threat residuals



Integrated Defense Active Suite (IDAS) Schedule





Program / Technology / Capability:	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Integrated Defense Active Suite (IDAS)				4	5	6	
Mature / Modify Components (CA, Fire Control, Sensors, and Countermeasure)	<i>ARMED Component Inputs</i>			★			
Component Integration							
Vehicle integration							
System Validation and Testing							
Hit Avoidance Devlpmt. & Int. Lab (HADIL)							
Testing and Evaluation of IDAS Components	<i>Capability Build and Validation</i>				★		
Testing and Evaluation of IDAS System							

ARMED PRODUCTS

- Near term AP components leveraging lessons learned from OSD APS LFTE
- HA common architecture breadboard for IDAS
- EW CM for IDAS

IDAS PRODUCTS

- Long term, mature hardkill / softkill Hit Avoidance System utilizing common architecture
- HA common architecture demonstrating component integration flexibility for additional systems

 Technology Readiness Level (TRL)
 ARMED Transition



IDAS Key Technical Components



Key Program Component: Mature sensor and countermeasure technologies with common architecture interfaces for advance threat detection and defeat.

Issue(s): Level of effort necessary to build in common interfaces. Quantify performance impacts, issues and concerns using the common interface.

Plan to Approach: Partnership with Industry, Government engineering centers and labs to overcome any interface issues and obstacles.

Key Program Component: Common architecture protocols and processes in a real time environment

Issue(s): First time use of the common architecture with protocols and processes in a real time environment with complete system hardware.

Plan to Approach: Integrate IDAS in a hardware in the loop environment subject to a comprehensive set of tests and simulations exercising each process and sub process. Bus loading, data rates, latencies, data drop will be monitored to assess performance and success of the common environment.



IDAS Industry Partnership Outlook



- Mature/Procure next generation component technologies (sensor and countermeasure) for IDAS integration and test, contract/s award FY15. Will be built off ARMED component development partnerships.
- Integrate component technologies into common architecture system, system maturation and test.
- Execute APS compliance plan to mature and document maturation process to achieve TRL 6.

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