

# GuardRail Pilot Program — A Legacy of Teaming

## Rapid Response Information Dominance

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Ever since industry proved the value of life cycle cost analysis, which is a method of calculating the cost of a system over its entire life span, the Department of Defense has consistently encouraged the Services to take the same pragmatic approach to weapon system development. In fact, the 1998 Defense Authorization Act mandated the use of such creative ideas to reduce the total ownership costs of key combat systems through innovation.

The Army's Total Ownership Cost Reduction (TOCR) Program is part of a continuing success story in responding to this challenge. Reducing costs and ensuring the highest return on overstressed and limited defense dollars has become the mantra for Service Acquisition Executives. The Army's GuardRail/Common Sensor (GR/CS) program has now joined the list of major system developments to follow the TOCR model.

GR/CS is a Corps-level airborne Signal Intelligence (SIGINT) collection and location system capable of providing tactical commanders near-real-time targeting information. Emphasizing Deep Battle and Follow-on Forces Attack support, the Army has fielded four separate battalions, all featuring different technologies but with similar configuration. All of the units integrate SIGINT, Communications Intelligence, and Electronic Intelligence reporting; enhanced signal classification and recognition; fast direction finding; and precision emitter lo-



RC-12 Airborne Reconnaissance Aircraft

cation through a combination of airborne sensors and ground processing equipment.

### GuardRail Concept of Operations

The airborne component consists of RC-12D/H/K/N/P/Q, which normally fly operational missions in sets of three aircraft. They send information in real-time through three dedicated wideband interoperable data links to four integrated-processing facility vans.

The vans make up the heart of the ground component, which also includes a complete array of support equipment. Two types of terminals complete the business end of operations, including Satellite Communications and Joint Tactical Terminals. But, multiple maintenance vans, high-capacity electric power generators, and multiple movers make

this a total transportable intelligence gathering and distributing asset.

Each of the four units' baselines is different because of the efforts at the time of development to meet the continuously evolving threat environment each has been tasked to satisfy. The technology insertions employed in the respective systems employ processing and software differences that have created a significant sustainment challenge to Army managers at all levels. Consequently, this low-density, high-value system does not fit neatly into the normal Army support structure.

All GR/CS systems are currently managed by the Product Manager Aerial Common Sensor (PM/ACS), under the Program Executive Office for Intelligence, Electronic Warfare, and Sensors (PEO

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Integrated Processing Facility (IPF), Hunter Airfield, Ga.



IEW&S) oversight, and sustained by the U.S. Army Communications-Electronics Command (CECOM) for payload and ground equipment and Aviation Missile and Communications for aircraft. Starting in 2009, GR/CS will begin transitioning into the next generation airborne system called the Aerial Common Sensor Program, which will achieve the ultimate goal of continual, rapid response information dominance on the battlefield for land component commanders.

**Our primary goal is to continuously improve our support to the soldiers. I view this [GuardRail] program as an opportunity to change the age-old perspective in which life cycle costs are managed.**

**—Victor J. Ferlise  
Deputy to the CG, CECOM**



Signing of the Memorandum of Agreement for the GuardRail Pilot Program.

Photo by Greg Brower

In the meantime, the challenge of managing and integrating the current GR/CS units to meet DoD guidelines for improving total cost management goes on. Because senior executives realized the lessons learned from the complex GR/CS program would be useful to other Army systems, they created the GR/CS Pilot Program. The bottom line goals for this program are to develop a tailored systems approach that will use best business practices and strategies to substantially reduce sustainment and upgrade costs.

In April, Army Maj. Gen. Robert L. Nabors, Commander of CECOM, and Edward T. Bair, PEO IEW&S, signed a Memorandum of Agreement jointly establishing a shared sustainment plan for the GuardRail Pilot Program. The key component of the agreement is that both organizations will establish a co-equal decision authority for program and financial management of GR/CS sustainment and future improvements through a series of focused Integrated Product Teams (IPTs).

### Signing the Memorandum of Agreement for the GuardRail Pilot Program

“The goal of this joint-led pilot program [GuardRail/Common Sensor] is all about achieving integrated life cycle management,” Bair said. “The PM Aerial Common Sensor/CECOM team has always been an innovator in applying state-of-the-art technology to GuardRail and the Army’s IEW [Intelligence and Electronic Workfare] collection sensor needs.

“We’ve achieved many technical firsts for any DoD Airborne ISR [Intelligence, Surveillance and Reconnaissance] capability ... remote operations of airborne signal intelligence sensors, precision targeting location accuracy, and direct-air-to-satellite relay capabilities,” Bair continued.

“This joint PEO/CECOM initiative, codified in the signing of this Memorandum of Agreement is all about our continued commitment to active teaming. Teaming is not just a word. It is all about trust, credibility, candor, respect, mutual ob-

jectives, and being measured as a team on results. And, this pilot program will take this legacy of teaming to the next level of efficient as well as effective support to our warfighters,” he said.

The GR/CS Pilot Program will be managed through an IPT structure consisting of an Executive IPT, an Integrating IPT, and several working IPTs. Each of the IPTs will be empowered to make decisions and recommend changes to law, policy, or regulations through the appropriate chain of command. While senior managers at the executive level will provide guidance to execute the implementation plan, the integrating IPT will directly manage the transition to the Pilot Program. The working groups will provide the research and analysis needed to develop the detailed implementation actions.

Changes may be necessary to the current sustainment and upgrade funding process. The Pilot Program has its own financial and management authority to accomplish cradle-to-grave support of the GR/CS system, which could conflict with current DoD procedures. Furthermore, managers have already identified

potential conflicts with Army policy on application restrictions for continuous technology refreshment initiatives. Obtaining waivers to permit the development and fielding of “best solutions” for software and hardware initiatives will enable the GR/CS team to execute a robust TOCR program.

“This close partnership, joint cooperation, and teaming between CECOM and the PEO enables Team C4IEWS to leverage the rapid advances in information technology through innovative support concepts and to ensure the highest levels of service while maintaining cost effectiveness,” said Victor J. Ferlise, Deputy to the CECOM Commanding General.

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**Editor’s Note:** The authors welcome questions and comments on this article. Contact Winter at [Stephen.Winter@ievs.monmouth.army.mil](mailto:Stephen.Winter@ievs.monmouth.army.mil); and contact Sterling at [dsterlin@alexandria.adroit.com](mailto:dsterlin@alexandria.adroit.com).

### DAU Publishes *Fast-Track Initiatives*

The Defense Acquisition University (DAU) is restructuring and building a strategic plan to rethink DoD’s business processes, reduce costs, improve efficiency, and prepare the Acquisition, Technology and Logistics Workforce for new ways of doing business.

To communicate their efforts, DAU has published a new *DAU Fast-Track Initiatives* brochure, which details how the University intends to go about developing new ways of doing business. These initiatives, once implemented, should lead to better business practices throughout DoD. Viewed as “The Way Ahead for Acquisition Training,” the DAU’s Fast-Track Initiatives include:

- Headquarters, DAU collocation with the Defense Systems Management College at Fort Belvoir, Va.
- Revision of PM Training Curriculum
- Critical Thinking and Case-Based Curriculum
- Faculty Development and Currency
- Budget Reassessment and Realignment

- Functional Integrated Process Team/Overarching Integrated Process Team (FIPT/OIPT) Jump-Start
- Supporting the new “5000” Changes
- Knowledge Management
- Change Management Center
- Strategic Alliances

Through improved acquisition training and reorganization of DAU staff functions, DAU will offer the DoD acquisition community an acquisition education, training, and career development program that meets their educational needs well into the 21st century.

For Fast-Track Initiatives progress, visit our Web site at [www.acq.osd.mil/dau](http://www.acq.osd.mil/dau) or call Army Col. Joe Johnson: (703) 805-2140; DSN 655-2140.

