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Enhancing Capabilities

**See First,
Know First,
and Act First**

The theme for the summer 2010 edition of the Army Space Journal is “Army Space – Sharpening Our Edge.” Given our continuing efforts to battle insurgency and terrorism, I feel the theme is both timely and important.

The phrase “sharpening our edge” can be used in many different contexts. Some will view the concept as a commitment to training and exercises in order to “stay sharp.” Others will view it as providing the Warfighter with the best possible tools available to support today’s era of persistent conflict. Another context might be to provide new and improved “arrows” for the Warrior’s quiver – to provide methods that allow the Warfighter to continually see first, know first, and act first.

U.S. Army Space and Missile Defense Command/Army Forces Strategic Command (USASMDC/ARSTRAT) continually strives to provide the Warfighter with new and innovative means for meeting their requirements for persistence, assuredness, and responsiveness from space-based systems. Persistence – there where and when it’s needed. Assuredness – knowing the capability will be there. Responsiveness – tasked in real-time for rapid delivery of information to the Soldiers in contact.

These three capabilities; persistence, assuredness, and responsiveness have long been foundational attributes of space-based assets. Unfortunately, these attributes apply more to the strategic needs of the nation than they do to the small units actually in contact with the enemy. At USASMDC/ARSTRAT we are working on different approaches for providing space-based and space-like capabilities to the Warfighter.

ROUND”

We believe the Long Endurance Multi-Intelligence Vehicle has the potential to provide small units with the persistence, assuredness, and responsiveness they so greatly need while operating in hostile environments and inhospitable terrain.

One system that holds great promise is the Long Endurance Multi-Intelligence Vehicle. The vehicle is a football field-sized hybrid airship that will be capable of providing multiple/exchangeable payloads to support the Warfighter. Several different existing payloads will be integrated for the vehicle. Depending upon the current mission requirements, payloads may be exchanged to provide optimum support to the Warfighter. The Long-Endurance Multi-Intelligence Vehicle's payloads include full motion video, ground moving target indicators (radar), data downlink, signal intelligence, and communication relay. These payloads will be responsive to real-time tasking from the units being supported, and will provide the ability to literally sit and stare at a location for weeks at a time, while also providing beyond-line-of-sight communications capabilities.

The requirements for this program come from a special intelligence, surveillance and reconnaissance Task Force set up to improve these capabilities across the Office of the Secretary of Defense. The Long Endurance Multi-Intelligence Vehicle design requirements include the capability to operate at 20,000 feet above mean sea level while providing a 2,000 mile radius of action. Endurance requirements call for 21-day on-station availability, and the vehicle will provide up to 16 kilowatts of electrical power for payload(s) and have a payload weight of 2,500 pounds. The hybrid airship will require only a short runway, and will carry several different sensors at the same time. The vehicle will be a recoverable and reusable multi-mission platform. It can be forward located to support extended geostationary operations from austere locations and capable of beyond-line-of-sight command and control.

We believe the Long Endurance Multi-Intelligence Vehicle has the potential to provide small units with the persistence, assuredness, and responsiveness they so greatly need while operating in hostile environments and inhospitable terrain. At the tactical level, vehicle may also provide the capability to flex and bend our communications and intelligence, surveillance and reconnaissance architectures to meet real-time requirements. The system may also serve as an affordable, viable option, for

rapidly complimenting our very capable space systems if they are unavailable or denied.

To develop the Long Endurance Multi-Intelligence Vehicle concept, USASMDC/ARSTRAT has entered into an agreement with Northrop Grumman for a vehicle technology demonstrator. This five year agreement provides for the design, development and testing of a long-duration hybrid airship system within an 18-month time period and subsequent transport of the asset to the Middle East for military utility assessment. If the program meets requirements, there is an option of procuring two additional airships.

The Long Endurance Multi-Intelligence Vehicle was awarded as an Other Transaction Agreement. "Other Transactions" for Prototype Projects are called agreements because they differ from a traditional Federal Acquisition Regulations contract because many of the federal laws and regulations governing procurement contracts are waived. An Other Transaction Agreement approach allows the Army flexibility to partner with companies or academia that does not normally do business with Department of Defense. These companies are referred to as non-traditional defense contractors. "Other Transaction Authority" is granted under Section 845 of Public Law 103-160 (10 U.S.C. 2371 note).

At USASMDC/ARSTRAT, we are continually looking for new ways to support the Warfighter. We strive to find faster and more cost-effective ways and means to deliver support to the lower echelons. Our efforts are clearly focused upon supporting the Warfighter, and we are resolute in our willingness to explore alternatives that best support the small unit conducting the close-in fight. The Long Endurance Multi-Intelligence Vehicle holds great promise for meeting these goals. In effect, sharpening the Warfighter's edge by providing an enhanced capability to see first, know first, and act first.

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