



**DEFENSE ADVANCED RESEARCH PROJECTS AGENCY**  
675 NORTH RANDOLPH STREET  
ARLINGTON, VA 22203-2114

**FEB 3 - 2017**

The Honorable Jim Bridenstine  
U. S. House of Representatives  
Washington, DC 20515

Dear Congressman Bridenstine:

Thank you for your letter of January 25, 2017, regarding the Defense Advanced Research Projects Agency's (DARPA) Robotic Servicing of Geosynchronous Satellites (RSGS) program.

The RSGS program aims to transform national security operations in geosynchronous Earth orbit (GEO). Today, virtually every aspect of military operations is critically dependent on exquisitely capable billion-dollar satellites that orbit 36,000 kilometers from the surface of the Earth. When failures occur at GEO, we have no way to determine with certainty what happened and—worse—we are unable to do anything to repair them. The RSGS program is aimed at demonstrating four on-orbit functions that are critically needed for national security:

- Detailed inspection of satellites, including obstructed areas
- Assistance in repairs of failed deployment mechanisms such as apertures and solar arrays
- Installation of new payloads such as weather sensors and “neighborhood watch” sensors on high-value assets
- Re-location of space assets following divert maneuvers to avoid dangers

To accomplish these missions, RSGS will demonstrate on-orbit highly advanced space robotics capabilities that DARPA previously developed. Please note that no existing or planned commercial servicing systems address this full set of capabilities. In fact, current commercial solutions in development will address only the re-location function and not the other three capabilities.

DARPA carefully considered the best acquisition approach to demonstrate the feasibility of this high-risk technology and concluded that a commercial partnership was the best approach. The Air Force has stated that it does not have interest in operating a servicer for both cost and national policy reasons, but is willing to purchase services from such a provider in the future. Since there are roughly four times as many commercial satellites in GEO as Government satellites, DARPA elected to solicit for a commercial partner capable of servicing both in order to lower the cost of servicing to all parties. This partnership approach is the most cost-effective approach for the Government to demonstrate the feasibility of these technologies and enable fastest deployment of RSGS capability.

DARPA is in source-selection for this program and conducted a fair and open competition that widely invited proposals from commercial companies. There are many companies with an interest in satellite servicing, and several submitted proposals. In exchange for providing Government property to the eventual selected company, the Government will obtain reduced priced servicing of its satellites and access to commercial satellite servicing data.

With regard to intellectual property, the Naval Research Laboratory developed the sophisticated robotic arm software under DARPA funding. These Government-developed robotic software algorithms will be made available to all U.S. companies through technical agreements.

As requested in your letter, DARPA has conducted a review of the program with key Pentagon stakeholders. We believe the program is consistent with the 2010 National Space Policy.

The DARPA point of contact for this matter is Lisa Heyes, Special Assistant for Congressional Affairs; she is available at [Lisa.Heyes@darpa.mil](mailto:Lisa.Heyes@darpa.mil) and 703-526-2810.

Identical letters have been sent to Congressman Rob Bishop and Congresswoman Barbara Comstock.

Sincerely,



Steven H. Walker, Ph.D.  
Acting Director