Space Laser Communication Terminal Phase 2 Prototypes to Enable on-Orbit Crosslink Compatibility of Future Space Systems for Resilient Space Architecture

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Summary: SSC selects CACI, General Atomics, and Viasat to develop EST Phase 2 prototypes to enable on-orbit crosslink compatibility among future DoD space systems.

EL SEGUNDO, Calif. – The United States Space Force's (USSF) Space Systems Command (SSC) awarded contracts to CACI, General Atomics, and Viasat to continue development of space laser communication terminal prototypes in Phase 2 of the $100 million Enterprise Space Terminal (EST) program. The contracts were awarded through the Space Enterprise Consortium (SpEC) Other Transaction Authority (OTA).

SSC selected the three companies from four competing companies who recently completed Phase 1 of the EST program, culminating in a Preliminary Design Review (PDR) from each company. Awarding Phase 2 of the program to three companies allows SSC to build the industrial base for long range laser communications terminals while maintaining competition to control costs and maximize innovation. The selected companies were chosen based on cost, schedule, and performance factors and were determined to be the best value for the government.

The EST program aims to enable on-orbit crosslink compatibility among future space systems via the use of a standardized enterprise waveform implemented in a long-range space optical communications terminal that is low size, weight, power, and cost (SWaP-C). ESTs are a key building block of the broader space data network known as MILNET, which will build a space mesh network for resiliency and information path diversity. The EST program leverages prior investment by the Department of Defense (DoD) and commercial developers to operationalize a new enterprise waveform designed to communicate in the Beyond Low Earth Orbit (bLEO) regimes.

"I'm pleased with the progress on the EST program so far. The EST prototypes are foundational elements to the future space data transport network that we are building," according to USSF Lt. Col. Jeffrey Fry, MILNET Program Manager for SSC's Space Domain Awareness and Combat Power Program Executive Office. "The ESTs will implement a common waveform so all satellites carrying these terminals can talk to each other. This is important as the network of satellites carrying EST compatible terminals will provide diverse communication paths for data that is critical to our national security and our way of life."

Space Systems Command is the U.S. Space Force field command responsible for acquiring, developing, and delivering resilient capabilities to outpace emerging threats and protect our Nation's strategic

advantage in, from, and to space. SSC manages a $15.6 billion annual space acquisition budget for the Department of Defense, working with joint forces, industry partners, government agencies, academia, and allied nations. For more information, visit ssc.spaceforce.mil and follow @USSF-SSC on LinkedIn.

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