

Media Contacts:

Dennis Miller

IS4S | Integrated Solutions for Systems, Inc.

dennis.miller@is4s.com

(719) 472-4577

Sarah Pokorney

Kearfott Corporation

s.pokorney@kearfott.com

(828) 803-4977



FOR IMMEDIATE RELEASE

Resilient-Embedded GPS/INS (R-EGI) Architecture Takes Flight on Military C-12J Test Aircraft: Redefining the Future of Navigation Technology

Holloman AFB, NM – 20-22 August 2024 – The Resilient-Embedded GPS/INS (R-EGI) architecture has achieved another major milestone with its successful flight testing on a military C-12J test aircraft. This breakthrough in Positioning, Navigation, and Timing (PNT) technology promises to redefine precision and reliability in complex navigation environments.

“Navigating through challenging terrains or densely populated urban areas with unwavering accuracy is now a step closer to reality, thanks to the R-EGI system”, stated Dr. Mikel Miller, Integrated Solutions for Systems (IS4S) R-EGI Program Director. “By integrating advanced GPS positioning with sophisticated inertial sensors and other complementary PNT technologies, R-EGI offers continuous, precise navigation even when traditional GPS signals are compromised, obstructed, or denied. This capability is vital for a wide range of applications, including military operations, autonomous vehicles, and disaster response scenarios.”



The government-owned R-EGI open architecture demonstrated its exceptional potential during a series of rigorous flight tests from August 20-22, 2024, at Holloman AFB, NM. In less than eight months, the R-EGI Design Agent Rapid Prototype Flight Demonstration Industry and Government Team consisting of personnel from IS4S, Kearfott Corporation, General Dynamics-Mission Systems, Collins Aerospace, 746th Test Squadron (746 TS), and 586th Flight Test Squadron (586 FLTS) successfully conducted three flights on the 586 FLTS C-12J aircraft to support the core R-EGI program. Mounted aboard this specially equipped aircraft, the R-EGI system integrated into a



modified F-16 Line Replaceable Unit on a 746 TS flight rack demonstrated its ability to maintain precise positioning and orientation throughout the flight duration. These flights included a demanding range of dynamic and aggressive flight operations on the White Sands Missile Range, with one cross-country flight specifically designed to evaluate Kearfott's inertial measurement unit functional performance.

According to Dr. Miller, "These milestone flights validated R-EGI's hardware and software architecture, showcasing its resilience and accuracy and will redefine navigation solutions for the modern era."

"The successful demonstration of the R-EGI system is a testament to the dedication and innovation of the R-EGI Design Agent Rapid Prototype Flight Demonstration Team," said Major Bernard Mutz, AFLCMC/WNX R-EGI Program Manager. "We not only met but exceeded all objectives ahead of schedule, showcasing the R-EGI architecture's potential to revolutionize navigation technology."

The R-EGI system's success marks a significant advancement in ensuring precise and reliable PNT capabilities under even the most challenging conditions. As the technology progresses, it holds the promise of transforming how military, and potentially civilian applications, manage complex PNT tasks.

Glenn Rolader, IS4S President and CEO, concluded that, "Success in aerospace innovation is built on collaboration and shared vision. The R-EGI system's groundbreaking achievement highlights the power of the System Design Agent concept, demonstrating that when industry and government partners unite their expertise and resources under this innovative model, we can overcome the most formidable challenges and redefine the future of technology."

###

About IS4S

Integrated Solutions for Systems, Inc. (IS4S) is a small business that provides a wide range of engineering and management solutions to government, military, and commercial customers. Founded in 2008, IS4S is a trusted System Design Agent specializing in open systems architectures, software development, systems engineering and integration, computational physics, additive manufacturing, and production. IS4S is headquartered in Huntsville, Alabama with office locations in Auburn and Opelika, Alabama; Orlando, Niceville, and Fort Walton Beach, Florida; Atlanta and Warner Robins, Georgia; Dayton, Ohio; Slidell, Louisiana; Aberdeen, Maryland; and Washington DC.

About Kearfott Corporation

Kearfott Corporation is a world-leading designer and manufacturer of guidance, navigation, and motion-control components and systems for military and commercial markets. Kearfott is a wholly owned subsidiary of Astronautics Corporation of America, a global leader in the design, development, and manufacture of avionics equipment and systems for the military and commercial aerospace industry. For more information on Kearfott's innovative solutions and proven technologies, visit www.kearfott.com.