

Space Systems Command Media Release



SPACE SYSTEMS COMMAND
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Space Systems Command continues partnership with Microsoft to develop collaboration platform and ecosystem for U.S. Space Force

Summary: SSC's Integrated, Immersive, Intelligent Environment (I3E) augmented reality space simulation powered by Microsoft's HoloLens headsets features a real-time display of orbital objects and allows users to interact with them in an accurately scaled space environment.

EL SEGUNDO, Calif. – Space Systems Command (SSC) recently renewed its partnership with the Microsoft Corporation to apply the latest commercial innovations to Space Force missions. The Integrated, Immersive, Intelligent Environment (I3E) is a follow-on to the Immersive Digital Facility (IDF) prototype successfully developed earlier this year.

The \$19.8 million I3E contract, with a one-year period of performance starting Dec. 1 and reserved scope for an additional three years, will mature the digital ecosystem's capabilities and deliver cutting-edge capabilities to enhance the Space Force's mission effectiveness.

"Leveraging emerging game-changers like I3E enhances our ability to gain situational awareness and enable decision-makers to act at a higher velocity than our adversaries", said Ms. Shannon Pallone, Program Executive Officer for Battle Management Command, Control and Communications (BMC3). "Within BMC3 we are investing in a digital environment to include I3E

to facilitate and expedite the development, assessment, and delivery of improved space capabilities to enhance capability integration across the USSF's Field Commands and mission partners.”

The I3E is constructed on an Azure cloud infrastructure and presents a flexible and secure platform which can support a wide range of Space Force missions. It currently hosts the following high-powered capabilities: physics-based space environment & satellite simulation, space intelligence collection & scheduling, strategic orbital wargaming, and augmented reality space simulation.

The I3E is pursuing accreditation to hold Unclassified and Classified information, which will allow SSC to move these prototype capabilities into operations. Additionally, by leveraging widely adopted commercial standards and best practices, the I3E can quickly and securely integrate new capabilities to help the Space Force keep pace with adversaries.

“This modernization journey presents an opportunity to deepen our relationship as we support the U.S. Space Force in adopting state-of-the-art solutions to more rapidly to meet their evolving mission needs,” said Jason Zander, Executive Vice President of Strategic Missions and Technologies at Microsoft.

The I3E augmented reality space simulation powered by Microsoft's HoloLens headsets is an especially powerful training and simulation tool. It features a real-time display of orbital objects and allows users to interact with them in an accurately scaled space environment. Additionally, the I3E enables Guardians to plug and play new and emerging space capabilities into the environment to better understand their interactions and impacts on the overall space

architecture. SSC has already begun training personnel on how to utilize I3E; after a session with the augmented reality tool, 1st Lt. Jordan Savage from SSC's Information Mobility Branch remarked, "Picking up a headset and being able to visually interact with the planet and satellites and understand space more in depth was mind-blowing."

I3E is currently accessible at its Los Angeles node, but the environment will eventually be accessible to Guardians everywhere via a Virtual Desktop. As the environment expands to service more users, mission sets, and classification levels, it can scale to support additional critical Space Force locations.

"Continuing the development and deployment of the I3E is going to pay huge dividends for our Guardians," said Col. Richard Kniseley, Senior Materiel Leader for the Commercial Space Office at SSC. "I'm blown away watching our young Guardians interact with the cutting-edge technology the I3E offers. Linking numerous sites together through the robust digital ecosystem provides an unrivaled experience to better understand the space domain."

This effort will continue under the Battle Management Command, Control and Communications (BMC3) Program Executive Office. BMC3 is focused on delivering the most advanced, resilient, and integrated Space C3 systems to enable multi-domain warfighting at the speed. The I3E is included as a part of BMC3's digital transformation initiatives that help expand the use of digital solutions as much as possible. Expanding these efforts enables SSC to develop systems that thrive and adapt within a hostile, complex, and highly dynamic threat environment.

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

advantage in, from, and to space. SSC manages a \$15 Billion space acquisition budget for the Department of Defense and works in partnership with Joint Forces, Industry, Government Agencies, Academic and Allied Organizations to outpace emerging threats. Our actions today are making the world a better space for tomorrow.

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Media representatives can submit questions for response regarding this topic by sending an e-mail to sscpa.media@spaceforce.mil



Capt. Drake Williams, I3E program manager, interacts with I3E's augmented reality space simulation at the SpaceDEN, a Science Applications International Corporation (SAIC) facility located in El Segundo, Calif. (U.S. Space Force photo: Capt. Calvin Suratos)