Op3D JCTD

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Background

Background: The warfighter has limited exposure to 3D scene visualization databases because of limited availability and insufficient software tools to fully exploit them. The combat-proven value and demand of 3D scene visualization products warrant the improvement of the Collection (Discovery & Retrieval), Processing, Exploitation and Dissemination (CPED) cycle to provide more of these 3D scene visualization products to the warfighter in a timely fashion. A multitude of DoD organizations and agencies share common gaps in the CPED cycle of Geospatial-Intelligence (GEOINT) products.

Op3D is an Office of the Secretary of Defense (OSD) joint venture to get 3D capabilities out to the warfighter faster, better and more effectively. AGC is the primary manager of this program as the Technical lead. Along with the other members of the core Management team, Op3D plans to develop and transition capabilities to quickly discover, acquire, manage, generate, exploit, disseminate and accurately update 3D GEOINT data products from multiple collection systems to the warfighter. This controlled process will enhance effective transition to multiple GEOINT and 3D scene visualization database production facilities to support military operations.

Current Operations

The JCTD is a short, two-to three-year program that allows state-of-the-art technologies and emerging capabilities to find their way to the warfighter in a faster, more user friendly manner. Op3D relies upon and leverages core technologies developed by programs managed by the Army Geospatial Center (AGC), the National Geospatial-Intelligence Agency (NGA) and the United States Special Operations Command (USSOCOM). Collection technologies from recently fielded organic airborne systems such as AGC's BuckEye sensor, and emerging airborne systems provide key assets and catalysts necessary for the development of (a) time-sensitive LIDAR data processing workflows; (b) rapid in-theater 3D data exploitation software tools; (c) 3D data management and discovery database and software tools; (d) 3D-enhanced tactical decision aid software tools; and (e) archive and dissemination architectures.

Future Developments: Op3D is in its first year of work and will capitalize on mature 3D technologies already available, integrate them into the warfighter work plan, and insert them into the workflow. As the program matures, these capabilities and technologies will, in turn, be dynamically updated and inserted into the warfighters' tool set for immediate 3D GEOINT capability improvement. The payoffs of Op3D will be seen in both the theater domain whereby advancements in the CPED process will dramatically impact the warfighter with time-sensitive and mission-critical 3D information and within the CONUS geospatial production centers where 3D-based special products can be more quickly developed to satisfy a broad suite of SOF and service-wide users and warfighters. These 3D products will range in use from advanced mission planning and rehearsal, training, simulation, experimentation, analysis, after action reviews, and most importantly direct mission support. The ability to reliably provide the warfighter with these 3D products will not only increase our effectiveness in prosecuting the war on terror – but also save lives by removing the terrain advantage often held by the enemy.

Point of Contact

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