

Intelligence Analysis “Born Digital”

Air Force Need: The U.S. Air Force vision for the future is a “digitally-empowered Air Force (AF) equipped with an agile workforce, state-of-the-art technologies, and intuitive processes that drive model-based enterprise decision-making, enable automation, institutionalize open architectures, and leverage authoritative models and data to ensure seamless stakeholder collaboration across the acquisition lifecycle.”¹ The National Air and Space Intelligence Center (NASIC) at Wright-Patterson Air Force Base (WPAFB) is fully committed to this Digital Transformation and needs to create an analytic environment in which analysis is ‘born digital’ - starting with a virtual representation of the threat allowing for a more dynamic, collaborative, and integrated analyst environment. Speaking at the 2022 Ohio Defense & Aerospace Forum in Columbus, Ohio, Lt. Gen. Shaun Morris (AFLCMC) stated that the three foundational components of the AF Digital Transformation are Model Based System Engineering (MBSE), Agile/DevSecOps development processes, and Open System Architectures. NASIC will use these foundational components to develop a modern analytical environment that enables accelerated creation of integrated, model-based intelligence analysis and production. This results in digital products that can be both human- and machine-consumable. NASIC would benefit from a Knowledge Creation Environment, a knowledge repository toolkit that would enable analysts to create, share, and collaborate while providing knowledge management and preventing knowledge loss.

Program Scope:

- Create an analytic environment in which NASIC analysis is born digital, using an integrated, data-centric and model-based approach resulting in primarily digital products. We will integrate AI/ML and data science capabilities to maximize automation of basic tasks and extraction of complex patterns or insights.
- Develop an open architecture sandbox using Agile techniques and DevSecOps development practices that will provide analysts with a Knowledge Creation Environment that provides the ability to create and manage data in an efficient, intuitive manner. An analyst would be able to efficiently position data for cross-functional use and automatically access, link, and share data from internal and external sources. This environment will prevent knowledge loss and provide structure for collecting and managing data.

Ohio Benefits: The proposed effort will further establish WPAFB/Dayton as a pathfinder for digital transformation. Additionally, more high-tech jobs will be drawn to the Dayton eco-system that will help position the area for sustained growth for the NASIC’s intelligence mission, keeping us at the forefront of advanced software development and digital transformation.

Defense Review Panel: This proposal meets all three criteria for selection as a Defense related initiative. It directly supports WPAFB, the Dayton region’s defense and aerospace communities, and benefits our National defense.

Requested Action: Authorization and Appropriation of an additional \$10 million in FY 2023 in the appropriate Air Force/NASIC RDT&E Program Element (PE), to initiate the Intelligence Analysis “Born Digital” program. NASIC has indicated they will provide the PE number directly to the Dayton Region Priority Development & Advocacy Committee if the program is selected. Report language:

Create Intelligence Analysis “Born Digital”- a dynamic, collaborative, and integrated analyst environment to virtually represent the threat using Open Systems Architecture/Agile methods. The committee provides an increase \$10 million in FY 2023 in the appropriate Air Force/NASIC RDT&E Program Element only for acceleration and maturation of the Intelligence Analysis “Born Digital” program.

Mr. Jeff Schlabs
VP, Information Technology &
Analytics
Radiance Technologies, Inc.
jeffrey.schlabs@radiancetech.com
937-296-4762

Mr. Curtis Rowland
Exec VP, Chief Strategy Officer,
Radiance Technologies, Inc.
Curtis.rowland@radiancetech.com
937-296-4776

Dr. Pete Weiland
CTO
Radiance Technologies, Inc.
peter.weiland@radiancetech.com
256-527-3411

¹ “Digital Campaign; One Team...One Digital Lifecycle Enterprise”, Air Force Material Command, 26 Oct, 2022, <https://www.afmc.af.mil/digital/>