Booz | Allen | Hamilton®

THE MODERN TECHNICAL INTEGRATOR

Delivering Space Superiority with Government-Owned Innovation



DELIVERING SPACE SUPERIORITY WITH GOVERNMENT-OWNED INNOVATION

Once off-limits to the human race, space is now a growing domain attracting intense military, intelligence, and commercial interest. Despite its relative newness, space has become critically important for the U.S. to maintain military and intelligence superiority over its adversaries. Modern communications, Joint All-Domain Command and Control (JADC2), and many aspects of national security increasingly depend in some way on space.

The unique attributes of the space domain require a tailored procurementand delivery approach to support national security and defense organizations' space activities. Historically, these organizations have relied heavily on the large original equipment manufacturers (OEMs), who strive to sell their own solutions and products. But this can lead to vendor lock-in and government dependence on monolithic solutions that limit both innovation and the rapid infusion of new technologies. For this reason, traditional OEMs are not motivated to deliver the modular, open-system architectures and government-owned solutions that military and intelligence buyers need in today's rapidly changing space environment.

To stay ahead of our adversaries, government organizations require an agile, independent technical integrator that focuses on the client's needs as the first priority. This modern technical integrator must be characterized by independence,



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– MICHAEL JOHNSTON Vice President and Space and Nuclear Business Leader



free to provide government clients with the right solution without limitations of proprietary solutions or restrictive agreements. As Booz Allen vice president and space and nuclear business leader Michael Johnston puts it, "The government needs technical integrators who can work with both the government and industry to provide the right integrated solutions that the government needs to achieve its objectives in the timelines needed."

HOW CAN GOVERNMENT BEST LEVERAGE INDUSTRY TO MAINTAIN SPACE DOMINANCE IN THE MODERN WORLD?

Answering this question requires an admission: Warfare is evolving to depend more on smaller-scale, agile, interoperable, and especially technology-centric systems. That evolution makes the speed of acquisition and integration between these smaller, numerous, and highly complex systems critically important.

Likewise, intelligence is evolving to depend more and more on space-based sensors and communication systems, requiring the Department of Defense (DoD) and intelligence community (IC) to protect these technologies that supply much of their information.

As warfare evolves in the technology era, the focus is shifting from individual platforms to the interconnectivity and interoperability between them. And as near-peer competitors gain ground in technology, weapons, and intelligence, equipment is no longer the main differentiator —software and information now have just as much of an effect on national security.



Decision speed in space requires enabling the edge, making it more capable and optimized for decision-making to drive the need for increased security, control, and confidence in the information and decision process. This becomes ever-more important as the U.S. pivots back to facing near-peer competition after decades of focusing on insurgents and other non-state actors.

In summary, while physical infrastructure will always be an essential ingredient for the U.S. to maintain superiority over adversaries, digital assets—software, technology, and the logistics of implementing and interconnecting the systems they run on—are growing in importance. To address this changing reality, the government should seek out partners who meet the following criteria:

- + Provides **government-owned technology** and designs to avoid vendor lock-in for major defense acquisitions, enabling truly open architectures—not just those coming from single vendors that may not enable the sensor and effects integration—which are essential for JADC2 success
- + Understands **government missions** and has proven experience delivering integrated systems that provide maximum benefits within cost
- + Follows the DoD, IC, and civil space agencies' mission of leveraging commercial technologies by **finding and working with innovators and disruptors** to fulfill critical objectives and continually refresh the defense enterprise's capability to counter new threats

As vice president and space business leader Eric Hoffman says, "The government should look to technical integrators who are not tied to specific solutions that they happen to sell, but who can focus on the warfighter and mission requirements and integrate the best technologies and solutions from all of industry."

HOW WILL THE USE OF AN INDEPENDENT TECHNICAL INTEGRATOR HELP THE GOVERNMENT MEET MODERN SPACE MISSION GOALS?

By working with an independent technical integrator, defense and intelligence agencies will get the **benefits of government-owned, non-proprietary, truly open architectures**, designs, and products. These technologies are modular, scalable, and agile by nature—with the ability to rapidly leverage the entire space architecture as missions and threats evolve.

Government clients will also be able to seamlessly **partner with innovative and disruptive commercial companies**, leading to the incorporation of cutting-edge



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technology that might not yet be on the radar of near-peer competitors—thus undercutting their ability to match U.S. capabilities. And they will have the **reassurance and confidence** of working with a company who offers these differentiators:

- + Technical prowess to understand what commercial innovators and disruptors can provide
- + Mission-based understanding of unique DoD and IC needs and challenges, and how technology can help resolve them
- + Expertise to provide the technical work needed to test, integrate, and deploy these capabilities rapidly and efficiently

WHY IS BOOZ ALLEN THE RIGHT PARTNER TO ENABLE NATIONAL SECURITY MISSIONS IN THE MODERN SPACE ERA?

We bring a unique blend of capabilities and differentiators to the table for our government clients. Building on our 75+ year track record of supporting the U.S. military and IC, our teams supply multiple advantages.



We bring proven technical expertise and delivery capabilities:

- + Booz Allen embraces modular open-system architecture (MOSA) design principles—not just at the edge, but throughout our systems, so that they are easily extended and scaled. MOSA minimizes risk and ensures that we—and our clients—stay ahead of changing technologies, missions, and threats.
- + We implement integrated digital engineering and common development and integration environments—also known as software factories—that ensure the government owns its technology baseline and is able to easily share it. This allows wide industry participation and rapid analysis, development, and fielding of new and modified capabilities.
- + Our prototyping skills and experience enable us to be a modern technical integrator that understands not just the technologies, but also the challenges of integrating them into systems.
- + Booz Allen helped pioneer Agile and SAFe methodologies across the IC and DoD communities, collaborating effectively across program management offices, industry partners, users and operators, and other stakeholders to rapidly develop, field, and evolve new mission capabilities.
- + We implement <u>cloud-first</u>, <u>cloud-native</u> ground systems for critical space missions on time and on budget, with modern DevSecOps software development and fully government-owned technical baselines.
- + Booz Allen has more than 20 <u>engineering labs</u> and <u>innovation hubs</u> staffed by technologists who prototype solutions, reducing the risk of protracted development cycles which often delay traditional space system development.

We are a recognized leader in key technologies:

- Booz Allen <u>recently won</u> a five-year, \$800M contract to deliver artificial intelligence (AI) capabilities to the Joint Artificial Intelligence Center (JAIC). We also recently <u>provided</u> an in-flight AI algorithm supporting an AI co-pilot in a U-2 Dragon Lady through the U2 Innovation Center at Beale, AFB.
- + We are one of the world's largest <u>cybersecurity</u> solution providers—our cybersecurity teams have fought cyberthreats for more than 40 years, and we've identified and mitigated cyber threats by employing digital twin technology for expensive space assets.

We are technology-agnostic, focused on the right solution for the mission:

- + Unlike many OEMs, Booz Allen is not tied to a set architecture or product that we are trying to sell. We operate independently to bring the government the right solution, not necessarily our solution. We are technology-agnostic and choose best-of-breed solutions that are right for the specific mission or use case. We aren't seeking to sell specific product lines or products.
- + We've developed tools and efficiencies over hundreds of successful cloud implementations which we provide as a service, speeding development for <u>highly secure ecosystems</u>.
- + Sometimes the right product or solution simply doesn't exist. For those cases, our ongoing research and development work equips us to rapidly develop or customize a solution. When we do provide a technology, we ensure the government owns the intellectual property.



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CONNECT WITH THE MODERN TECHNICAL INTEGRATOR

While the defense and intelligence communities face many challenges, finding the right integrator to work with shouldn't be one of them. Booz Allen represents the independent technical integrator who:

- + matches mission understanding with technical expertise
- + delivers government the benefits of owning the technical baseline
- + brings efficient integration solutions with an agile, rapid, discovery-based approach

Learn more about clients who tell us they've found the right integrator for today's space and cyber missions. Visit <u>BoozAllen.com/space</u>.