Booz Allen Engineering Services
Global Integrated Solutions Based on Technical Excellence and Mission Insight
“Engineering Services delivers to our defense and civilian government clients rapid, tailored, and sound solutions for engineering and scientific efforts.”

—Lee Wilbur, Senior Vice President
Federal Defense and Intelligence communities are seeing many engineering-related challenges. Ever changing mission requirements are demanding more rapidly deployable and adaptable engineering design solutions. Modernization programs are continually constrained by the current budgetary environment, the complex interconnected global nature of today's military and security systems, and the unpredictability of emerging threats.

**Engineering for What's Next.** Booz Allen Hamilton's Engineering Services team delivers rapid, tailored, and sound engineering and scientific solutions to our defense and civilian government clients. We couple a profound understanding of engineering and scientific principles to our rich consulting heritage to solve product, facility, and systems challenges within our four engineering thrusts: Rapid Prototyping, System Engineering & Integration, Energy, and Applied Sciences.

**Rapid Prototyping**

Rapid Prototyping puts agile solutions quickly into the hands of users and operators. It provides a good portion of desired capabilities upfront in the short term, and gradually upgrades functionality with continuous input from the field. Field prototypes meet demands in weeks or months, not years. Defense and Intelligence agencies can effectively use our Rapid Prototyping services to address constantly changing, unanticipated mission requirements. Booz Allen brings deep insight of individual agency missions to the Rapid Prototyping process, allowing us to tailor solutions to meet mission needs.

A critical benefit for agencies using our services for Rapid Prototyping is that the government owns the resulting design and intellectual property (IP). This is different from original equipment manufacturers that often retain ownership of the IP, which locks agencies into the same supplier for future iterations of solutions based on the underlying technology or design. Booz Allen is truly independent, so we are not tied to a specific platform, technology, or vendor – allowing us to offer solutions that are unencumbered and integrated to provide the best functionality.

In cases where an agency might want to adapt existing proprietary solutions, Booz Allen can reverse engineer mechanical, electrical, and optical designs and give the government all the information it needs to competitively procure standard commercial parts for each new solution. When possible, our unique engineering design solutions use standard off-the-shelf components and technology. As a result, agencies are able to mass produce the best quality solution at the best price. By making Rapid Prototyping a core strategy for national security, federal agencies will be able to better protect citizens from emerging threats wherever they appear, and to accomplish this critical mission while meeting new fiscal requirements.

**System Engineering & Integration**

Our practice applies tailored system engineering and integration principles to a wide range of systems, reducing cost and delivering increased capabilities within the desired schedule. We help Defense & Intelligence agencies to navigate each program through the life cycle transactions associated with buying and selling complex, large-scale products and/or services.
Booz Allen is able to provide this high level of independent engineering services due to our remarkable breadth of engineering and scientific expertise coupled with our rich century long consulting heritage of making our client’s mission our mission:

- Biological, Chemical, Radiological, and Nuclear
- Electronics, Communications, and Sensing Research
- Medical Biomedical, and Food Safety
- Power and Operational Energy
- Facilities and Construction Management
- Earth, Climate, and Environmental Engineering
- Safety and Human Systems Integration
- Industrial Support
- Transportation

We have thousands of engineers with expertise in Systems Engineering & Integration who follow proven, efficient, standard processes, while using professional tools and infrastructure and executing under disciplined governance. Just as important, we have developed that expertise working directly with government clients in virtually every department and agency.

Energy

Booz Allen provides a proven approach to complex energy engineering projects to deliver demonstrable, sustainable energy solutions. We help our clients reduce energy demand through efficiencies, expand and secure supply, and build energy security into agency culture and operations through a combining of technology and process improvement. We provide engineering energy services in both research and operational energy.

In particular, Booz Allen helps military agencies to manage the risks of and associated demand reduction for transporting liquid fuels to and on the battlefield to include innovative renewables and load balancing of consumption. We provide system level solutions to include renewable supplementation, and reduced footprint through enhanced reach back. We apply advanced netcentric solutions such as advance remote meter reading and industrial control through terrestrial and satellite wireless relays.

Our research support includes technology evaluation and assessment for emerging technology test bed processes and technology roadmaps, as well as ideation and source selection evaluation for research agencies. Our research support includes biofuels, biomemetics, nanofluidics for desalination, next generation battery technology, multi-bandgap solar arrays, sequestration, geothermal, advanced wind farms, and tide energetics recovery.

Applied Sciences

Booz Allen exploits science to discover viable technical solutions, leveraging diverse technical disciplines and the firm’s resources to address client missions. Booz Allen’s Applied Sciences provide broad, deep technical knowledge and highly specialized expertise in a wide range of disciplines ranging from mathematics and physics, to biology and electrical engineering. Three major thrust areas include:

Physics. Areas of focus are atomic and molecular, quantum science, condensed matter, and high energy/particle physics.

Materials. Areas of focus are nanotechnology, optical materials, electronic materials, and energy technologies.

Biology. Areas of focus are bioengineering, bioinformatics, biomedicine, and biochemistry.

Capabilities of a project team are mapped to a technology lifecycle to transition a discovery from its
conception during basic research through deployment to users and operators.

With these specialized capabilities and proven processes, Booz Allen’s Applied Sciences services help federal agency R&D organizations to effectively meet emerging challenges and next generation solutions.

We are experiencing a growing demand for our scientists in the management of R&D to include mergers/acquisitions, internal corporate and agency investments, analysis of competitive landscape, and global technology trends. We are also experiencing a rise in the need for scientific expertise to augment intelligence analysts in assessing emerging and asymmetric threats. Finally, as more systems are being repurposed in a fiscally constrained climate, we are called upon to conduct detailed science based performance prediction of systems under unanticipated environmental conditions.

### Booz Allen Engineering Services

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<tr>
<th>Service</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Rapid Prototyping</strong></td>
<td>Creates functional defense and intelligence solutions faster by rapidly engineering and producing field prototypes to meet any request in weeks or months, not years. Addresses constantly changing, unanticipated mission requirements with unique engineering design solutions using standard off-the-shelf components and technology.</td>
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<td><strong>System Engineering &amp; Integration</strong></td>
<td>Applies tailored system engineering and integration principles to a wide range of systems, reducing cost and delivering increased capabilities within the desired schedule. Includes Enterprise Integration, Engineering and Science, Systems Engineering and Integration, Acquisition and Program Management, and Supply Chains and Logistics.</td>
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<td><strong>Energy</strong></td>
<td>Proven approach to complex energy engineering projects delivers demonstrable, sustainable energy solutions that achieve ROI and meet the mission need. Provides answers for Department of Defense’s complex energy supply chain and logistics problems with speed, precision, and certainty.</td>
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About Booz Allen Hamilton

Booz Allen Hamilton has been at the forefront of strategy and technology consulting for nearly a century. Today, the firm is a major provider of professional services primarily to US government agencies in the defense, security, and civil sectors, as well as to corporations, institutions, and not-for-profit organizations. Booz Allen offers clients deep functional knowledge spanning strategy and organization, technology, operations, and analytics—which it combines with specialized expertise in clients’ mission and domain areas to help solve their toughest problems.

The firm’s management consulting heritage is the basis for its unique collaborative culture and operating model, enabling Booz Allen to anticipate needs and opportunities, rapidly deploy talent and resources, and deliver enduring results. By combining a consultant’s problem-solving orientation with deep technical knowledge and strong execution, Booz Allen helps clients achieve success in their most critical missions—as evidenced by the firm’s many client relationships that span decades. Booz Allen helps shape thinking and prepare for future developments in areas of national importance, including cyber-security, homeland security, healthcare, and information technology.

Booz Allen is headquartered in McLean, Virginia, employs more than 25,000 people, and has annual revenues of approximately $5.59 billion. Fortune has named Booz Allen one of its “100 Best Companies to Work For” for six consecutive years. Working Mother has ranked the firm among its “100 Best Companies for Working Mothers” annually since 1999. More information is available at www.boozallen.com. (NYSE: BAH)

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