

About Booz Allen

Booz Allen Hamilton has been at the forefront of strategy and technology consulting for nearly a century. Providing a broad range of services in strategy and organization, technology, operations, and analytics, Booz Allen is committed to delivering results that endure.

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Tradespace Analysis

From Concept to Implementation

The desire to maximize organizational capabilities often conflicts with the realities of a fiscally constrained environment. The US Department of Defense (DoD) and each of its member services must understand the interdependencies between operational impact and resource allocation and quantify tradeoffs between the two. As budgets continue to tighten, the defense community will need to make difficult program choices, reallocating resources to ensure that it meets both fiscal constraints and operational needs. In the context of DOTMLPF (doctrine, organization, training, materiel, leadership and education, personnel, and facilities), each organization will have to ask the difficult question: What adjustments should we make to ensure that we achieve the highest level of operational effectiveness given our limited resources?

Booz Allen Can Help You Be Ready for What's Next

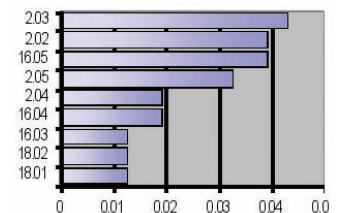
Booz Allen Hamilton, a leading strategy and technology consulting firm, has worked with the US Air Force (USAF) and Defense Information Systems Agency (DISA) to develop methods and tools that facilitate programmatic investment decisions. By identifying capability gaps, overlaps, and shortfalls and developing capability roadmaps, Booz Allen helps organizations identify potential opportunities to reallocate resources to maximize the operational capability return on investment—a process known as tradespace analysis. Booz Allen can leverage its experience in developing and implementing successful capabilities-based tradespace analysis tools to help you meet your strategic investment challenges head on.

Booz Allen's Tradespace Analysis Approach

Tradespace analysis provides senior leadership with an approved, capabilities-based approach to programmatic decision making that builds on our many other capabilities-based analysis service offerings. By combining the results of operational assessments with budgetary data, tradespace analysis identifies opportunities to reallocate resources to optimize the delicate balance between operational capability and financial efficiency.

The tradespace analysis process is as follows:

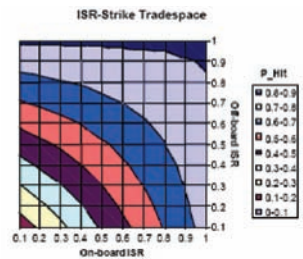
- Identify desired effects with capabilities and define appropriate performance measures and associated objectives
- Identify the details of the current and planned programmatic resources devoted to meet these capabilities
- Use architecture analysis, Process Sequence Models (PSM), and the Dynamic Capability Assessment Models (DCAM) to determine the current and planned operational capability status of the organization
- Identify operational capability shortfalls



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- Identify investments that define the workspace in which tradespace opportunities can be found:
 - Redundant investments
 - Marginal improvement investments
 - Investments that support capability areas that can tolerate greater risk
 - Investments where sustainment cost is prohibitively high and may exceed the cost of a new program



- Prioritize the tradespace candidates to identify the highest cost and lowest impact investments
- Conduct “what if” drills to assess the operational impact of various investment portfolio alternatives with the tradespace candidates removed
- Determine and recommend the most suitable course of action (COA) to maximize operational capability subject to resource constraints

The expected benefits of tradespace analysis include:

- Identify redundant investments
- Identify investments that provide marginal improvement to operational capability
- Identify investments that support capabilities that can tolerate greater risk
- Identify investments whose sustainment cost may exceed the cost of a new program
- Recommend a COA to maximize operational capability subject to resource constraints

Booz Allen Client Success Stories

The following are recent examples of Booz Allen’s tradespace analysis support:

- **Capability Review and Risk Assessment (CRRRA).** Every 2 years, the Air Force Deputy Director for Operational Plans (AF/A5XC) conducts the CRRRA to analyze current and future USAF capability health and its associated risk to operations. This way, the AF/A5XC can create a roadmap for future capability requirements and align programmatic investments. Booz Allen helped identify systems that are tradespace opportunities across the USAF. We balanced the impact of these systems on the operational effectiveness of USAF support to combatant commands by determining the cost and potential benefit if the resources were reallocated. The final step of this methodology was a proposal for a concrete COA based on both capability development and fiscal realities.
- **DISA.** Booz Allen supports DISA Information Assurance/Network Operations (IA/NETOPS) by providing decision support tools and processes to assist in its Global Information Grid (GIG) portfolio management. Our work focuses on bringing together relevant data sources and assimilating them with subject-matter-expert input to identify a capability framework, supporting initiatives, and the relative impact of each. The tools and processes help the organization identify capability shortfalls and lead to recommended roadmapping and tradespace courses of action.

Modeling, Simulation, Wargaming, and Analysis (MSWA) Services:

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| • Tradespace analysis | • Capability portfolio management | • Command and control training development |
| • Interoperability assessment | • Operational risk assessment | • Infrastructure management |
| • Force development assessment | • Evaluation of alternatives | • Probability of program success |
| • Capability assessment | • Architecture analysis | • Lean/business process analysis |
| • JCIDS analysis | • Gap/overlap analysis | |
| • CONOPs portfolio assessment | • Capability roadmap analysis | |
| | • OPLAN analysis | |

Whether you’re managing today’s issues or looking beyond the horizon, count on us to help you be ready for what’s next.