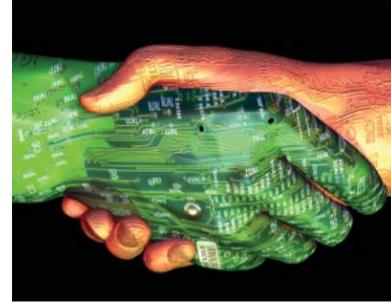


Working across multiple market sectors and environments, ASSETT has the unique ability to integrate technology, engineering practices, and lessons learned, bringing the “best-of-breed” to our customers.



**Who We Are**

- Technology/Information Systems Experts and Architects
- TS/SCI Cleared Teams

**What We Do**

- Engineering for Complex Systems
- DoD/Commercial Engineering Cross Practices
- COTS Supportability Methodology

**Our Skills**

- Information Systems Engineering
- Acoustic Sensor Systems
- Information Management/Reduced Manning
- Financial Management Systems Analysis
- Architecture (DoD and Non-DoD Frameworks)
- Technology Insertion and Refreshment Analysis
- Information Technology Solutions
- Software Application Development

ASSETT welcomes the opportunity to discuss how our innovative methodologies can benefit DoD, government, and commercial projects. For more details, please contact us.



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**ASSETT’s services are available through various federal contract vehicles, including the following:**

**SeaPort-e (SeaPort Enhanced)**

Chief of Naval Operations (CNO) mandated Seapower 21 as a means to meet the need for a more effective and cost-efficient Navy. To meet the objectives of Seapower 21 and increase procurement efficiency, Naval Sea Systems Command (NAVSEA) Warfare Centers established the SeaPort Enhanced II (SeaPort-e) Multiple Award Contract (MAC) vehicle. Information may be found at [www.seaport.navy.mil/SeaPort/MAC%20Scope.aspx](http://www.seaport.navy.mil/SeaPort/MAC%20Scope.aspx).



**Creative Alliant Joint Venture**

ASSETT is a partner company in the Creative Alliant Joint Venture, holder of a GSA Alliant Small Business contract. Creative Alliant information may be found at [www.creativealliant.com](http://www.creativealliant.com). Information on GSA’s Alliant Small Business Government Wide Acquisition Contract may be found at [www.gsa.gov/alliantsb](http://www.gsa.gov/alliantsb).



*ASSETT — the partner of choice for complex systems engineering services and support.*



**ASSETT helps clients introduce technologies and concepts into new or pre-existing systems — rapidly, cost-effectively and with minimal risk.**

ASSETT provides premier systems engineering, and management services associated with the design, architecture, development, production and support of complex information systems and software.

We partner with our government and commercial clients to introduce new technologies and concepts into deployed systems rapidly, cost effectively and with minimal risk. ASSETT specializes in providing novel solutions to new or pre-existing systems requirements. We focus on partnering with our customers to understand their organizations’ needs, and to help bring a fresh perspective to the total life cycle of their organizations. Our strategy alignment services ensure that our customers invest in areas that will provide the most value to their organizations. We are committed to maximizing performance and minimizing Total Ownership Cost (TOC).

Your ASSETT team is the key to this unique approach. Our specialists’ extensive systems/solutions experience, combined with cutting-edge ideas contributed by our academic collaborations, enables us to engineer highly innovative technologies.

Using the constantly evolving software and hardware tool sets that result, we also perform independent verification and validation reviews and analyses, along with proof-of-concept demonstrations of key recommendations for technology insertions, migrations, system improvements and long-term maintainability support.

**When it comes to complex systems engineering services and support, ASSETT is your partner of choice.**

## SERVICES AND SOLUTIONS

### E-Information Technology Systems Engineering

- Requirements Generation
- COTS Integration
- Concept of Operations (CONOPS)
- Technology Insertion and Refreshment Analysis Services
- Life Cycle Management
- Cost/Technology Projection/ Architectural/Reliability Modeling (TIPP)

### Systems Analysis and Architecture

- Definition
- Design
- Development
- Upgrades
- Cross-Discipline Analysis

### Software and Web Development

- Authentication
- Analytic Hierarchical Process
- Application Development
- Modeling and Simulation
- Global Web Architecture
- Requirements Generation

### Hardware Services

- Architectural frameworks (Commercial or Department of Defense)
- Assessments
- Off-the-Shelf Technology Insertions
- Maintainability/Reliability/Availability
- Obsolescence/Performance/Supportability

### Tools and Products

- Custom Tool Development
- Sonar
- Systems Engineering Processes
- Modeling & Simulation
- Signal Processing
- Acoustic Telemetry Sensor Systems

## Services

A sampling of ASSETT's broad spectrum of engineering services—

### Common Cost Management Framework

Engineering services recently delivered to NAVSEA demonstrated how effectively sound engineering methods and processes can add perspective and bring strength to financial management systems planning and development.

### Software Support Agent

ASSETT provides independent verification and validation services, reviewing the reliability and accuracy of software being deployed in various engineering platforms. These services provide our clients with unbiased test results, recommendations for change and management of deployment versions, and also perform final deployed system verifications to ensure completion of installation, checkout and testing plans.

### Technology Insertion and Refreshment

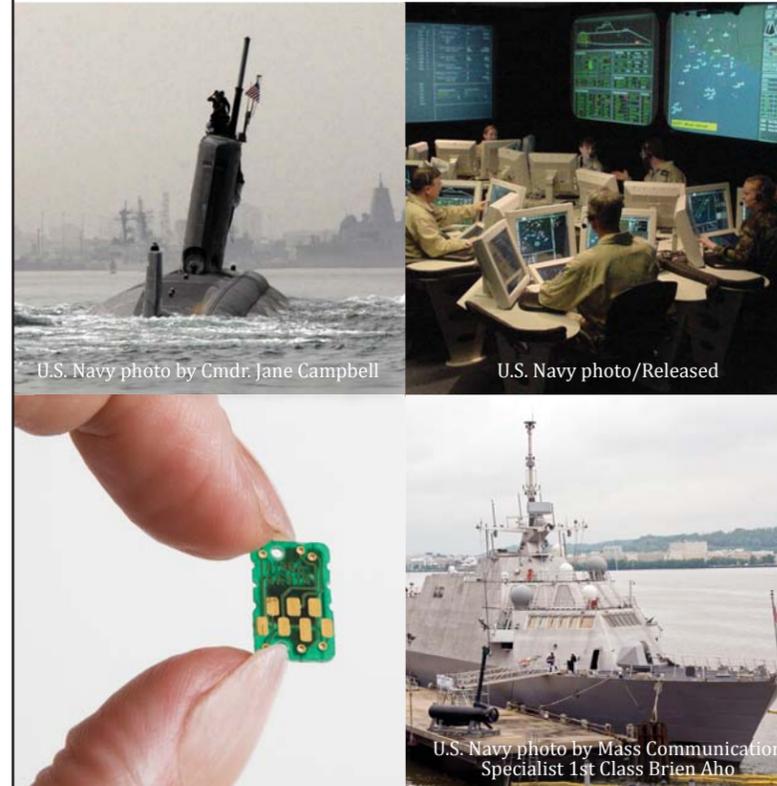
takes the customer through all stages of minimizing the total life cycle cost of their system. This service incorporates all of the features outlined in our TIPP tool (discussed in the Tools section below) along with incorporating all aspects of:

- Open Architecture (OA)
- Open Software Architecture (OSA)
- Both government and commercial Off-The-Shelf technologies (GOTS & COTS)
- Service-Oriented Architecture (SOA)
- Mechanical Interfaces
- Modularized Designs, Documentation, Testing and Certifications
- Spares Methods
- Maintenance

## Technology

ASSETT's Data Integrity and Pedigree research work has resulted in an application that evaluates the provenance and factual reliability of data gathered from the Global Information Grid (GIG), enabling decision makers to understand information sources and reliability, and to make operational decisions based on evaluation of the most accurate information.

*ASSETT has the hardware and software skills and labs to build prototypes, proof-of-concept systems, and production-level configurations for delivery.*



U.S. Navy photo by Cmdr. Jane Campbell

U.S. Navy photo/Released

U.S. Navy photo by Mass Communication Specialist 1st Class Brien Aho

practical application in the commercial world, helping companies to gain significant competitive advantages.

## Academic Collaborations, Research and Training

### Academic Collaborations

ASSETT has developed key collaborative associations with several university research programs in areas which include development of human-systems interfaces (Massachusetts Institute of Technology), mathematical algorithm modeling and development (George Mason University) and information reliability modeling (health care; University of Virginia). ASSETT also has an established internship program that brings together engineering students from various universities and ASSETT program managers and engineers to work together in these and other research and academic collaborations.

- MIT** Development of human-systems interfaces
- GMU** Mathematical algorithm modeling and development
- UVA** Information reliability modeling (health care)
- Stevens Institute** Systems engineering research, instruction and course design (MS & PhD Level)  
  
System design and operational systems engineering process development (Agile development)  
  
Board of Advisors

### Research and Training

ASSETT provides industry-experienced instructors on-site to deliver a wide variety of systems engineering and program management training. Students benefit from instructors' expertise and experience in complex design, development, integration, production and support programs that include:

- Military systems, including submarine combat systems
- Non-military systems, including air traffic control
- Commercial systems, including IBM internal Information Technology
- Financial Management Systems (FMS), including NAVSEA's FMS

In addition to teaching collegiate-level courses through Stevens Institute, our instructors offer similar non-degree classes through ASSETT to ensure high-quality, yet cost-effective training for industry and government.

**Whatever it takes—  
ASSETT gets it done.**

## Company Profile

ASSETT was founded in 2001 by senior engineers and program managers having significant experience providing advanced system design and life cycle support for DoD and commercial clients.

We bring a breadth of experience both in managing large, complex projects and in patent-level innovation—in the form of a nimble and responsive small business that enables us to supply our customers with rapid, cost-effective, reliable, long-term and well-documented solutions.

We bring a streamlined, disciplined systems engineering approach to problem resolution that ensures low risk, low cost, and minimum time-to-deployment; we're known for combining leading-edge capabilities and fresh perspectives with core principles such as honesty, discipline, and long-term dependability. We're honored by the number of clients who return, project after project.

ASSETT is pleased to have been recognized with the following awards:

- Small and Emerging Contractor Advisory Forum (SECAF) Small Government Contractor of the Year Finalist, 2009
- INC. Magazine #47 Fastest Growing Privately Held Defense Contractor, 2007
- Tibbetts Award Winner, Small Business Innovative Research Contractor, 2007
- Lockheed Martin Subcontractor of the Year, 2006

ASSETT's Manassas, Virginia facility includes a secret-level facility clearance that includes 19,000 square feet of office and conference room space and another 3000 of laboratory space, one-third of which is a classified lab.

Our employees are the heart of the company, bringing experience, dedication, and knowledge in three major venues: government, commercial, and academia.

### Government Partnerships

In the government sector, ASSETT supports the DoD's need to maintain its technological advantage by providing low-cost systems that can be developed, produced, and maintained within the prescribed budget structure. Our work has resulted in as much as a 4:1 savings in cost, and a 2:1 reduction in time-to-deployment.

For government agencies, ASSETT's work on complex systems extends from submarine combat systems (AN/BQQ-5, AN/BQQ-6, AN/BSY-1, AN/BSY-2, *Virginia* C3I)—an area where many of our employees have over 30 years' experience—to surface ships (CVN-77 and Littoral Combat Ship to aircraft (Merlin Helicopter and JSF).

### Commercial

The commercial marketplace is driven by intense competition, requiring companies to be first to market and lowest in cost in order to become or remain an economic leader. We have consistently demonstrated the ability to reduce time-to-deployment and cost by improving and upgrading engineering systems, and tailoring systems engineering practices to meet strategic requirements. Many of ASSETT's tools and services developed in our government-sponsored research work have

*ASSETT has deeply rooted engineering expertise, analytical abilities, and ethical business and personal conduct.*



High-Performance Acoustic Telemetry processing hardware manufactured and delivered by ASSETT demonstrates our ability to design, build and successfully deliver a fully integrated hardware and software package in the acoustic realm.

## Tools

The Technology Insertion Planning and Process (TIPP) tool merges the customer's architecture (assembly, subassembly, component) and timelines (obsolescence, refresh cycles, insertion cycles and planned enhancements) with constantly maintained technology models (cost, performance, reliability, position in life cycle, for example) to produce a cost-effective solution for a maintainable, upgradable and reliable system. Created by our founders for the *Virginia*-class submarine, and supported across PEO ships and IWS, TIPP has proven its effectiveness, across the board, time and again.

The ASSETT Architecture Assessment Tool (AAAT) provides an analytical hierarchy process that assesses the relative merits of various system designs. Perspectives of users, managers, engineers and maintainers are weighed against system performance, life cycle cost, system availability, supportability and risk.

The Schedule Workload Integrated Forecasting Tool (SWIFT) evaluates a large number of scheduling alternatives by using optimization algorithms to rapidly generate a set of corporate-level schedule alternatives that help the program manager review options which impact cost minimization and schedule disruption, and meet operational schedule constraints to maximize fleet readiness.

The first implementation of SWIFT enables the U.S. Navy shipyard planners to insert "unplanned maintenance availabilities" and understand and optimize downstream effects. SWIFT currently supports the maintenance scheduling function for Commander, Fleet Forces Command (CFFC), and will be used by NAVSEA to provide information to OPNAV and CFFC for recommending multiple alternative courses of action at the fleet scheduling conferences.

## SERVICES AND SOLUTIONS

(continued)

### Engineering and Management Support

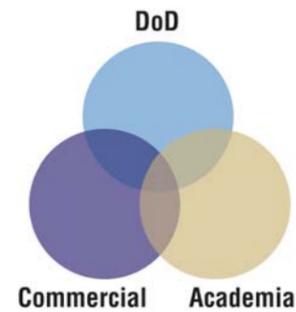
- Technical Strategies
- Fleet Installation and Support
- Fleet/Shipyard Scheduling (Commercial or Department of Defense)
- Technology Evolution Planning
- Proposal Writing
- Conceptual Designs
- Requirements Development and Documentation of Requirements
- Enterprise Engineering
- Supportability Concepts
- Change Management
- Subcontract Management Approaches (Domestic and International)
- Audits/Assessments/Independent Reviews
- Risk Management
- Testing, Documentation, Integration
- Integrated Logistics Support Plan Development
- Schedule/Cost/Resource Optimization
- Cross-Discipline Analyses (partial list)
  - Risk
  - Cost Benefit
  - Business Process (Audits & Improvements)
  - Operational Assessment

### Academic

- Systems Engineering Courses
- Project Management Courses
- Master of Science and PhD programs – Stevens Institute of Technology
- Customized Specialty Courses
- Training Programs (Development and Delivery)
- Technology/Policy Updates

## Customers

ASSETT is a unique small business with a customer base balanced between the commercial and defense sectors. The chart at right illustrates ASSETT's diverse experience in major government and commercial market sectors, and demonstrates our reputation for vision, creative problem solving, and delivering deployable engineering solutions.



### Systems Engineering

Understanding complex systems design and development, platform and deployment requirements, and delivering systems that meet operational schedules and meet complex mission requirements is key to the success of every services delivery undertaken by ASSETT.

### Consulting

ASSETT's consulting services comprise a diverse range of capabilities, including systems and process analyses, and process improvement and reengineering, in fields that include maritime engineering, sonar and signals processing, as well as business, financial, and program management in the commercial sphere.

### Program Management

A consistent and disciplined approach to project and program management is vital to systems acquisitions and deployment, and is the only way to ensure that operational requirements are met and that cost and schedule objectives are consistent with planned baselines. ASSETT is working toward the Software Engineering Institute (Carnegie Mellon University) Capability Maturity Model® Integration (CMMI) compliance: existing and developing program management processes at ASSETT are ahead of the curve.

### SBIR

ASSETT's Small Business Innovative Research (SBIR) Programs have been awarded at a rate that is three times the industry average. Our proposed solutions to these high-priority defense needs have been recognized by a 100% transition from Phase I (idea) to Phase II (prototype development). Two of ASSETT's current Phase II research projects are in transition to Phase III (deployment and commercialization).

**ASSETT brings high value to every program, across the development life cycle...from initial concept through testing, implementation and upgrades.**

Customers	Systems Engineering	Instruction	Consulting	Program Management	SBIR	Partnerships	Solutions
<b>BAE SYSTEMS</b>			×	×			Program Reviews Subcontract Management
<b>EDO</b> Electro-Ceramic Products GLOBAL TECHNOLOGY REACH	×						Sensor System Design (UFBCA) High Performance Acoustic Telemetry Processing Hardware Sonar Applications
<b>GENERAL DYNAMICS</b>	×		×	×			Virginia-class Submarine Early Integration Test Non-Propulsion Electronic Commonality Strategy SSGN Studies and Planning
<b>IBM</b>	×			×			Enterprise Engineering Development Independent Reviews for Production Yield E-Commerce (Web Ordering Architecture Design) Business Process Redesign Federal Financial Management Architecture
<b>ITT</b>	×					×	Velocity Sensing Sonar ASDS Technology Refresh
<b>LOCKHEED MARTIN</b>	×			×	×		Submarine Combat Systems Sensors and Sensor Systems Technology Insertion and Refreshment
<b>STEVENS</b> Institute of Technology		×					Instruction and Course Design (MS & PhD Level) System Design and Operational Effectiveness Systems Engineering Process Development (Agile Development) Board of Advisors
<b>Progeny Systems</b>	×			×			Submarine Transmit Group Redesign for High Frequency Open Architecture Design Considerations NAVSEA Financial Management Requirements
<b>NAVSEA</b> NAVAL SEA SYSTEMS COMMAND	×			×	×	×	PMS 401, 425, 404, 435 Technology Insertion and Refreshment Mk-48 and -54 Acoustic Improvements Combat System of the Future, Integrated Submarine Imaging System (ISIS) Financial Management System & Requirements
<b>NAVSEA</b> NAVAL SEA SYSTEMS COMMAND	×			×	×	×	PEO SUBS, Ships, IWS Technology Insertion Planning Tool Set Architecture Tool Development Obsolescence Management Tool Set Open Architecture Designs and Specifications
<b>DEPARTMENT OF DEFENSE</b> UNITED STATES OF AMERICA	×	×	×	×	×	×	SBIR 05-003 Velocity Sensing Sonar Improvement Hardware and Software Development Technology Insertion And Refreshment for Reliability