

## MicroSystems Integration, Inc. (MSI)

A veteran-owned small business with offices in Pawcatuck, Connecticut, that specializes in providing technical products and services in the broad areas of:

- **Strategic & Operational Planning**
- **Performance Measurement**
- **Operations Analysis & Modeling**
- **System Design & Development**

MSI was founded in 1989 to develop innovative solutions for our customers by providing the highest quality multi-disciplinary technical services. MSI collaborates with its customers to understand their business, operations, activities, and problems, integrating people and technology into cost-effective and productive systems to meet our clients' needs in an increasingly challenging and competitive world marketplace.

## MSI's Expertise

MSI's talented staff of team-oriented individuals has expertise in:

- **Strategic Planning & Requirements Definition**
- **Operational & Organizational Effectiveness**
- **Simulation & Modeling Applications**
- **Business & Mission Support Applications**
- **Information Technology Integration**



## MSI's Selected Customers and Partners

MSI's customers and partnering span a collection of organizations:

- U.S. Coast Guard
- DHS, Office of Program Analysis and Evaluation (PA&E)
- Office of National Drug Control Policy (ONDCP)
- Joint Interagency Task Force West (JIATF-W)
- Agile Consulting Experts, LLC (ACEL)
- ISHPI Information Technologies, LLC
- CACI Premier Technology, Inc.
- PwC PricewaterhouseCoopers, LLP
- BayFirst Solutions, LLC
- Wyle Laboratories
- eGlobalTech
- Five Rivers Services, LLC
- SRA International, Inc.
- Booz | Allen | Hamilton
- The Tauri Group
- VectorCSP

For more information on MSI or MSI products and/or capabilities, feel free to call Patrick J. Ryan at (860) 599-1727 or e-mail [PatR@msi-ct.com](mailto:PatR@msi-ct.com).

*"We build SOLUTIONS to support the way YOU do business."*

## MSI's Capability & Skills

**Strategic Planning & Requirements Definition** – Support to create/develop strategic plans, assessment strategies, and projection tools to produce integrated process improvement.

- **Interagency Supply Reduction Goals and Performance Measures Working Group Support.**” Providing support to the Executive Office of the President, Director of the Office of National Drug Control Policy (ONDCP) through research, analysis, review, and assessment of the current performance measures used for international supply reduction as contained in the National Drug Control Strategy (NDCS).
- **Standard Operational Planning Process (SOPP)/ Global Force Management (GFM).** Supported design and development of a systematic, standardized operational planning process to develop and communicate direction, priorities, and resource apportionment throughout the chain of command to align units and the Mission Support Organization while preserving the Coast Guard's operational principle of on-scene initiative.
- **Strategic Planning and Requirements Development.** Multi-agency strategic planning/performance measurement in support of the Joint Interagency Task Force West (JIATF-W). Facilitation to develop strategic plans for CG-6 and TISCOM. Performed requirements analysis for the Coast Guard Data Network.

**Operational & Organizational Effectiveness** – Support to conduct analysis and assessment to produce integrated organizational improvement.

- **Department of Homeland Security (DHS, Office of the CFO) Fleet Studies.** MSI supported DHS in the conduct of a Multi-Mission Cutter Fleet Study and Aviation Fleet Study that provided senior leadership with a comprehensively developed business case analysis of multiple discrete fleet mixes.
- **Mission Need Statements (MNSs) and Concept of Operations (CONOPS) Support for CG-771.** Supporting development of MNSs and CONOPS that will guide the formulation and resourcing of the Coast Guard's maritime trident (Maritime Patrol Forces, Deployable Specialized Forces, Shore Based Forces) functionality. MNS documents will provide the foundation for future acquisition programs.
- **Mission Analysis Requirement (MAR) support for DCO-81.** Providing facilitation services and expertise for Coast Guard Deputy Commandant for Operations (DCO) to prepare tightly woven, thoroughly traceable and clearly articulated Mission Analysis Reports that fully address program strategic objectives.
- **Western Hemisphere Transit Zone (WHTZ) Performance Gap Analysis (PGA).** Coordinated 70+ interagency subject matter experts following an analytical approach to identify capability, capacity, and performance gaps. A common operational framework organized varying processes and information to enable common understanding, requirements development, and identify initiatives to close performance gaps.

*“MSI's creation of the interdiction chain model to assess capability and capacity gaps at each point along the drug interdiction continuum, complemented by the application of campaign-level modeling and simulation tools to assess and compare the operational effectiveness of various force combinations proposed to close documented gaps, were instrumental in providing operators and policy makers the information needed to make informed allocation, acquisition and policy decisions.” 2010 United States Interdiction Coordinator's (USIC) Award for “Superior Performance”*

- **Coast Guard Deployable Specialized Forces (DSF) Stem-to-Stern Review and Implementation Support.** High-profile project reported to DHS as Coast Guard's leading priority. Review of DSF effectiveness and ability to retain proficiency analyzed all areas of the DSF, including resources, force management, operations, training, requirements, and organizational structure leading to significant DSF organizational realignments.
- **Coast Guard Modernization.** Provided planning, facilitation, and analytical support for the Coast Guard Modernization effort, including organizational design, alignment, change management, measurement, and information system management.
- **Coast Guard Fleet Mix Analyses (FMA).** Supported Coast Guard-wide study that utilized best practices and built upon Coast Guard's body of knowledge. Determined an Objective Force using a risk-informed methodology, with incremental alternative mixes addressing validated mission requirements

## MSI's Capability & Skills

**Simulation & Modeling Applications** – Apply academic, operational, and industry background to analysis, development, and support of simulation and modeling applications.

- **Coast Guard Maritime Operational Effectiveness Simulation (CGMOES).** Used to assess operational effectiveness achieved by a system of assets and capabilities. Accredited for campaign-level analyses for acquisition support, force-structure planning, and operational force apportionment. Used for Coast Guard FMA and DHS CFS.

*“The operational effectiveness model and other analytical methods the Coast Guard used have proved useful for guiding decisions on the revised Deepwater asset mix... In performing our review of the Coast Guard’s model, we reviewed computer simulation model criteria developed by an authority in the field of simulation modeling and found that the model successfully addressed these criteria.”*

**GAO. Changes to Deepwater Plan Appear Sound, and Program Management Has Improved, but Continued Monitoring Is Warranted (GAO-06-546; April 2006)**

- **Interdiction Continuum Chain Model.** Developed a model that projected requirements and evaluated effectiveness of a multi-agency, multi-nation force structure against the movement of drugs through a network of land/air/maritime vectors. Used for WHTZ PGA.

**Business & Mission Support Applications** – Design, development, integration, testing, and support of enterprise applications to support business and mission goals of our customers.

- **Great Lakes Bridge Hour Study.** An analysis of the methodology used to establish fair and reasonable rates for pilotage services on the Great Lakes addressing a diverse set of stakeholders with competing demands. Provided recommendations to address concerns expressed by stakeholders and inquiries from Congress.
- **Coast Guard Doctrine Development.** Drafted Doctrine and Process Guides governing the establishment and management of a doctrinal pyramid structure within the Coast Guard.
  - **Coast Guard Operations Doctrine (Pub 3-0 series).** Provides enduring guidance for operations.
  - **Coast Guard Planning Doctrine (Pub 5-0 series).** Provides draft principles for Planning and Policy, Mission Analysis, Performance Assessment, and Preparedness.
  - **Capability Analysis and Management Doctrine (Pub 7-0).** Provides roles, responsibilities, and guidance for analyzing, developing and sustaining capabilities.
- **Unified Performance Logic Model (UPLM) Development.** UPLM is a “cognitive” mapping tool that captures relationships between capabilities, requirements, processes, and goals/outcomes achieved. The defined relationships provide traceability for cause-and-effect performance analysis and improvement. UPLM is the basis for requirements and capabilities management.

**Information Technology Integration** – Apply background in information technology to commercial and government applications to conceptualize, plan, design, develop, integrate, test, and support enterprise information systems.

- **Establishment of CG-6 & SDLC.** Development of governance frameworks and policies to execute organizational change – combining multiple offices into an integrated, enterprise-wide perspective for C4&IT investments throughout the Coast Guard. Developed practices to establish and govern System Development Lifecycle (SDLC), Enterprise Architecture (EA), C4&IT Investment Management, Information Security, and Configuration Management. MSI continues to be a subject matter expert for the SDLC.



## MSI’s Selected Staff

- **Patrick J. Ryan** – Mr. Ryan is the founder of MSI with over 30 years’ experience in the analysis, design, and development of innovative technology applications, with specialized expertise in strategic planning, performance measurement, operations analysis, modeling and simulation, and systems development.
- **Thomas J. Rogers** – Over 30 years’ experience in leading and conducting technical assessments and evaluations for maritime operational analysis, operations management, and law enforcement efforts. Subject matter expertise in operations analysis for the Coast Guard and other maritime organizations.
- **Chris G. Kmiecik** – Over 28 years' experience in project management/engineering, policy and strategy development, organizational effectiveness, and system requirements development, simulation, design, and testing. Subject matter expertise in performance assessment and process improvement.
- **Ted Montgomery** – Over 30 years’ experience in all aspects of large customer service-oriented organization support. Subject matter expertise in resource planning, development, and implementation of operational planning processes, risk-based decision-making processes, and analysis of alternative solutions.
- **Jim Rutkovsky** – Over 30 years' program and project management experience. Subject matter expert in operational and organizational effectiveness and planning.
- **Paulette Baker** – Over 30 years’ experience in writing, editing, and proofreading professional documents and publications. Subject matter expertise in editing, proofing, and processing complex technical documents comprising text and graphic components.

## MSI’s Selected Contract Information

Contract Name	Prime Contractor	User Agencies
GSA Management, Organizational and Business Improvement Services (MOBIS), SINS: 874-1 and 874-1RC; Consulting Services	MSI	All Federal
DHS Technical, Acquisition and Business Support Services (TABSS): HSCG23-12-D-ATB002	BayFirst Solutions, LLC	DHS
DHS Technical, Acquisition and Business Support Services (TABSS): HSCG23-13-D-ATB041	SRA International, Inc.	DHS
USCG R&DC System Engineering and Technical Assistance (SETA): HSCG32-13-D-R00002	Booz Allen Hamilton	Coast Guard
Technical Engineering Development and Support Services (TEDSS) for the U.S. Coast Guard’s Command and Control Engineering Center: HSCG44-12-D-TEDSSB	Five Rivers Services	Coast Guard
SNIM – IDIQ Multiple Award Contract for Research and Development (R&D) and /or Advisory & Assistance Services related to R&D efforts: FA1500-10-D-0009	Wyle Labs	DoD
HDTAT - Homeland Defense & Security (HD) Technical Area Tasks (TATs) contract Program on Irregular Warfare (HD-14-0959)	Wyle Labs	DoD