



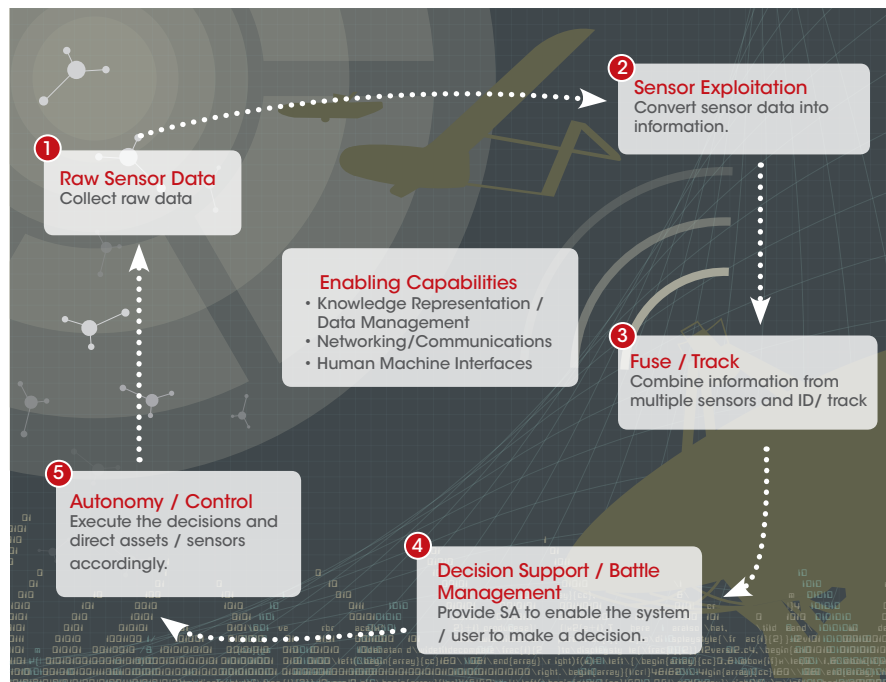
SCIENTIFIC SYSTEMS COMPANY, INC. (SSCI) IS A LEADING TECHNOLOGY INCUBATOR AND PROVIDER OF DECISION SUPPORT, INFORMATION EXPLOITATION, AND COLLABORATIVE AUTONOMOUS SYSTEMS TO THE DEFENSE AND COMMERCIAL MARKETS. WE ARE ONE OF THE TOP 20 RECIPIENTS OF SMALL BUSINESS INNOVATION RESEARCH (SBIR) AWARDS IN THE COUNTRY AND ARE HAILED BY THE NAVY AND ARMY FOR OUR RECORD OF SUCCESSFUL TECHNOLOGY TRANSITIONS. TODAY, SSCI'S SOLUTIONS ARE BEING UTILIZED BY THE TOMAHAWK PROGRAM OF RECORD AND NUMEROUS OTHER NAVY AND ARMY OPERATIONAL SYSTEMS.

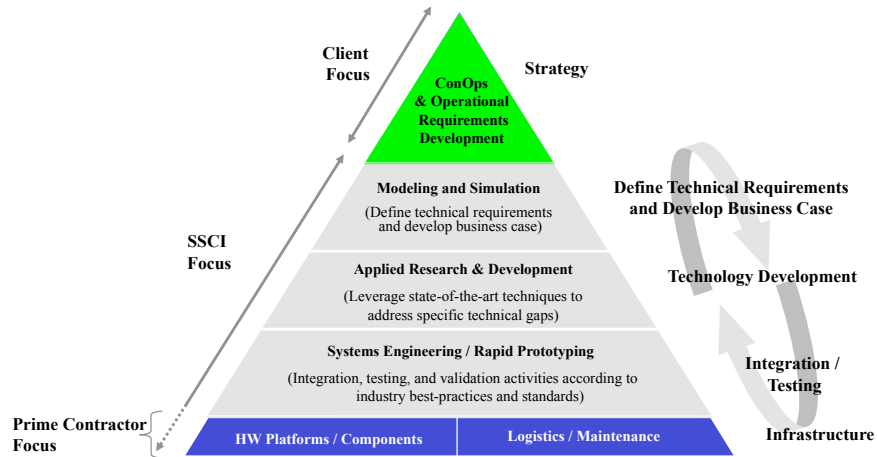
MISSION SSCI develops and integrates best-of-breed technologies to provide intelligent, adaptive, and robust solutions tailored to our clients' requirements and applications. While our primary focus is portable software solutions, we also bundle our software with COTS hardware / platforms to provide turn-key solutions for our clients.

SSCI accomplishes this mission by leveraging our unique blend of services and industry / domain expertise:

- Strong technical leadership across each facet of the 'Net-Centric Information Processing Chain'.
- Demonstrated ability to integrate diverse technologies into scalable solutions.
- Strong network of industry primes and consultants to facilitate transition of our solutions and to provide a unique understanding of clients' operational challenges.

DOMAIN EXPERTISE Net-Centric Information Processing Chain




SERVICES Execution Framework


By integrating the design and development of 'Net-Centric Information Processing' systems, Scientific Systems rapidly delivers revolutionary capabilities to our clients. SSCI's organizational structure reflects the uniqueness of our execution model, with specialized personnel in each of the areas described above.

TECHNOLOGIES AND PRODUCTS

SSCI is a matrixed organization with employees assigned to groups that reflect areas of technical expertise and lines of business. This section contains a brief description of each technology area and contains an overview of the types of problems addressed within each. Sample projects currently under development as well as those with near term transition potential are highlighted.

Sensor Processing

Advances in physics and materials, and breakthroughs in processing algorithms are making sensors of all types smaller, more accurate, and less expensive. Scientific Systems works with leading research institutions and industry partners to develop new functionalities for sensors and bring them to market. SSCI also uses advanced signal processing and estimation tools to produce better quality data with existing sensor hardware.

Radar super-resolution and signal processing software for image formation, change detection and video segmentation and processing form the basis of SSCI's advanced sensor processing technologies.

Sensor Exploitation

Given the proliferation of low-cost, high resolution sensors on both manned and unmanned platforms, turning raw data into actionable information is the key to force multiplication. Building on our expertise in GMTI, SAR, GPR, sonar, HIS, and EO/IR, Scientific Systems bridges the gap between data and information.

Image-Based Navigation And Precision Targeting (ImageNav)

ImageNav is a vision-based navigation and precision targeting system for use on manned / unmanned aircraft and cruise missiles. ImageNav uses the platform's existing sensors to compare the air vehicle's flight path to a known terrain database. ImageNav has demonstrated target geo-location and navigation precision of <3 meters CEP in high-fidelity tests on real flight data gathered by Boeing. ImageNav is currently being transitioned to several cruise missile and UAV platforms.

Mine / Unexploded Ordinance (UxO) Detection and Recognition

SSCI's handheld mine detector software enables an order-of-magnitude improvement in detection of buried metallic and non-metallic landmines. This software has been fielded by CyTerra (now L3) on their hand-held mine detectors, which are currently in use in Iraq and Afghanistan

Visual Collision Detection

SSCI's Visual Threat / Obstacle Awareness (VISTA) system enables UAVs to operate in the national airspace by providing these platforms with the ability to detect, see, and avoid obstacles and conflicting aircraft. VISTA is a passive solution that has been successfully tested on an unmanned helicopter for DARPA.

Fusion and Tracking

Information is the key to victory in the new urban battlespace, but information saturation and fragmentation hinders the warfighter's ability to use all the resources at his disposal. The problem is exacerbated by the fact that data can come from diverse sources and the quality of data can vary significantly. SSCI counters this by intelligently combining data from multiple sensors to improve feature identification, track patterns, and improve knowledge management. We have developed multisource-multitarget fusion algorithms that can combine information from numerical sensor data of different modalities, processed textual data as well as human intelligence.

Group Tracker

SSCI software uses GMTI radar data to enable real-time tracking of dismounts and to determine intent by monitoring the evolution of group dynamics over time. SSCI's Group Tracker has been tested extensively under DARPA's Foliage Penetration Reconnaissance, Surveillance, Tracking and Engagement Radar (FORESTER) program.

RF Transmitter Localization

SSCI's man-portable transmitter localization system utilizes COTS hardware and advanced signal processing techniques to accurately and rapidly geo-locate suspicious transmitters in a variety of tactical environments. Under extensive testing by the Army, this system was able to simultaneously locate multiple 2-way radios with 50-100m accuracy in under 5 minutes.

**Decision Support/
Battle Management**

Combining multiple sources of intelligence to facilitate mission planning and execution, SSCI software closes the time gap between information and action. Our Decision Aids also enable commanders to rapidly make decisions in data-intensive environments.

Automatic Route Planning

CMARS, the Cruise Missile Auto-Router, calculates the optimal route of a cruise missile to the target, subject to constraints of weather, altitude, airspace restrictions, and real-time threat intelligence. CMARS, which reduces mission planning time from hours to minutes, is being deployed on the Tomahawk Planning System in 2008.

Autonomy/Control

Building upon our Sensor Fusion and Decision Support framework, SSCI's unmanned vehicle control and autonomy software allows multiple air, ground, and maritime unmanned vehicles to coordinate and collaborate to achieve large-scale, complex missions. Applications include swarming UAVs, teamed ground robots, undersea vehicles, and hybrid systems.

SSCI is also a leader in the areas of Air & Spacecraft Guidance, Navigation, and Control (GNC). Our solutions have been employed on systems ranging from advanced fighter aircraft to NASA space crafts.



In applications such as wide-area surveillance and missile defense, the number of potential objects of interest can sometimes be overwhelming without intelligent use of sensor resources. SSCI has developed software tools that are derived from control and information theory to efficiently and dynamically allocate sensor resources based on data quality and objects' tactical significance. The software tools have been successfully applied to ground surveillance and ballistic missile defense.

UUV/USV Autonomy & Collaboration

SSCI's software for multi-vehicle mission planning, autonomy, and collaboration enables teams of unmanned vehicles to cooperatively accomplish large-scale ISR and mine-counter measure (MCM) missions. These capabilities have been extensively developed and tested under various DARPA and ONR programs.

Integrated Damage Adaptive Control System (IDACS)

IDACS enables manned and unmanned space and aircraft to effectively operate in the event of damage to the airframe or failures of critical control surfaces / actuators by generating corrective signals when errors are detected. Under extensive tests in Boeing's F/A-18 piloted simulator, IDACS enabled the pilot to regain control of the aircraft under a broad variety of control and actuator failures. IDACS is a software solution that can easily be retrofitted to existing control systems.

Communications, Networking, and Information Assurance

As the military moves toward an agile distributed and network-centric operational doctrine, there is a need for reliable, efficient, and assured access to information services. Wireless networks in tactical, underwater, and airborne applications impose additional challenges. As reliance on IT networks in both military and civilian applications grows, there is an increased need to ensure the security of confidential information. IT networks do not function like national borders. The steps required to completely prevent unauthorized entry are cost-prohibitive and would choke off normal forms of commerce and traffic. Rather than protecting communication channels and information containers, it is necessary to protect the content itself, whether it is in transit or stored in a cache.

Scientific Systems specializes in scalable routing and medium access control protocols for mobile wireless ad hoc networks in terrestrial as well as airborne networking applications. Our networking expertise also includes optimization of the protocol and software layers to increase disruption-tolerant access to distributed information. Our information assurance expertise includes proactive and real-time intrusion detection for distributed mobile ad-hoc networks, such as airborne, land, surface, undersea, or heterogeneous networks.

PARTNERING

Over twenty-five percent of Scientific Systems annual revenue is subcontracted to our industry partners. We believe that it is essential to work closely with our industry partners at the beginning of the R&D cycle in order to assure rapid development, integration, and transition of our technologies. We have established preferred relationships with leading prime contractors and system integrators in order to assure input and collaboration from the earliest stages of development. Our industry partners include such firms as: ATK, Ball Aerospace, BAE Systems, BBN, Bell Helicopter, Boeing, CyTerra, Draper Laboratories, Lockheed Martin, Mercury Computer Systems, Motorola, Northrop Grumman, Raytheon, SAIC, Sarnoff Corporation, Sikorsky.

MANAGEMENT TEAM

Dr. Raman K. Mehra
Chief Executive Officer

Dr. Mehra founded Scientific Systems in 1976 and is responsible for the overall corporate and financial management of SSCI, and the supervision of a professional staff of engineers and scientists. Since the company's inception, Dr. Mehra has directly managed over two hundred projects. He is responsible for leading the company into new fields such as robotics, ATR, power system control, financial modeling and forecasting, nonlinear optimization of flight vehicles, missile guidance & control, and nuclear and fossil power plant control. Dr. Mehra received his Ph.D. from Harvard University and has published over 200 articles on the theory and applications of Modern Control and Estimation Theory.

Dr. Andrew Bennett
Sr. Director,
Research &
Development

Dr. Bennett has been designing and developing intelligent control systems for marine and terrestrial robots since 1991. He currently oversees SSCI's R&D efforts, with a focus on productization of advanced technologies. Dr. Bennett comes to SSCI from iRobot Corporation, where, as CTO of the Government and Industrial Robots Division, he oversaw development of the highly successful PackBot Tactical Mobile Robot. Before iRobot, Dr. Bennett worked as a Senior Robotist for Walt Disney Imagineering R&D, where he designed the control system for the Disney's first free-walking quadruped dinosaur robot, and at Draper Laboratories and the MIT Sea Grant Laboratory working on a variety of UUV systems. Dr. Bennett holds a B.S. in Mechanical Engineering from MIT, a M.S. in Mechanical Engineering Design from Stanford University and a Ph.D. in Marine Systems from MIT.

Gregory Gibson
Director,
Unmanned Systems,
Mission Planning

Mr. Gibson currently manages all existing projects in the Unmanned Vehicles and Mission Planning areas, which include the CMARS auto-router for the Tomahawk missile and route planning software development for unmanned vehicles. He develops commercialization strategies for transitioning SSCI technologies into the Unmanned Vehicles and Mission Planning markets. Mr. Gibson has over twenty years experience in technical business development, program management, technology risk assessment and management. Mr. Gibson holds Masters degrees in Mathematical Statistics from the George Washington University, Statistics from University of Akron, and an MBA from Boston University.

Kunal G. Mehra
Head,
Strategy & Market
Development

As the Head of Strategy and Market Development, Mr. Mehra is principally responsible for leading the transition of SSCI's technology development programs into fielded products. In this capacity, he interacts very closely with the Acquisition and Product Development community as well as key industrial partners. Mr. Mehra led the commercialization of both the CMARS and ImageNav products and has been instrumental in securing Phase III funding. Prior to SSCI, he was a senior executive of Equitant Inc., a leading technology enabled outsourcing provider that was acquired by IBM in April 2005. At Equitant, Mr. Mehra was responsible for Global Sales Development and Product Development and is largely responsible for increasing Equitant's revenues by 80% in the 18 months prior to the IBM acquisition. Mr. Mehra was formerly a strategy consultant with McKinsey & Company in New York. He holds a B.S. (Honors with Distinction) in Operations Research with Minors in Economics and International Affairs from Columbia University.



Dr. Sanjeev Seereeram
Director,
Systems Engineering

Dr. Seereeram oversees development of complex autonomous systems at SSCI. His expertise in Systems Engineering, Software Engineering, and Advanced Research & Technology Development helps the SSCI team bridge the gap from research program to fielded products. Dr. Seereeram is currently leading a large DARPA-funded effort to develop software for autonomous/collaborative operations of fleets of unmanned vehicles. Dr. Seereeram previously served as SSCI's technical lead for NASA's New Millennium ST6 Autonomous Rendezvous flight experiment. Dr. Seereeram holds a PhD in Computer and Systems Engineering from Rensselaer Polytechnic Institute (RPI).

Dr. Ssu-Hsin Yu
Deputy Director,
Research &
Development

Dr. Yu has been with SSCI since 1996, and currently manages the technology-focused teams within the R&D organization. He was principally responsible for the success of the Mine Detection/Recognition system as well as the RF Transmitter Localization product line. As principal investigator on a number of SSCI's most successful programs, Dr. Yu's expertise in sensors, control systems, and pattern recognition provides strong technical leadership for SSCI's researchers. Dr. Yu holds a M.S. in Mechanical Engineering from University of Wisconsin-Madison and a Ph.D. in Mechanical Engineering from MIT.

BOARD MEMBERS

Dr. Daniel Alspach

Co-Founder of Homeland Venture Partners. Dr. Alspach co-founded Orinconn Corporation in 1973 and served as CEO until the firm was acquired by Lockheed Martin in 2003.

Dr. Paul Kaminski


CEO of Technovation and Sr. Partner of Global Technology Partners, LLC. From 1994-1997, Dr. Kaminski served as the Undersecretary of Defense for Acquisition and Technology where he was responsible for all Department of Defense (DOD) research, development, and acquisition programs. Currently, Dr. Kaminski is a member of the National Academy of Engineering, a Fellow of the Institute for Electrical and Electronics Engineers and the American Institute of Aeronautics & Astronautics, and a Senior Fellow of the Defense Science Board. He is Chairman of the Board of Exostar Inc. and of HRL Labs, and a Director of Bay Microsystems, CoVant Technologies, DFI International, General Dynamics, In-Q-Tel, Inc., and RAND. He serves as an advisor to the Johns Hopkins Applied Physics Lab, LynuxWorks, Inc., MILCOM Technologies and MIT Lincoln Laboratory. Additionally, Dr. Kaminski is a member of the Senate Select Committee on Intelligence Technical Advisory Board, the National Reconnaissance Office Technology Advisory Group, the FBI Director's Advisory Board, and the Atlantic Council.

Dr. Robert Kohler, Jr.

Retired Executive Vice President & General Manager, TRW Avionics & Surveillance Group. Prior to TRW, Dr. Kohler enjoyed a 25-year career at the NRO and CIA and retired as the Director of the CIA's Office of Development and Engineering.

Dr. Roger F. Roberts

Dr. Roberts retired as Senior Vice President of Boeing's Space & Intelligence Systems Division in 2005



CONTACT INFORMATION **KUNAL G. MEHRA**
Head, Strategy & Market Development
500 West Cummings Park
Suite 3000
Woburn, MA 01801
U.S.A.

[E] KMehra@ssci.com
[P] 781.933.5355 Ext.249
[F] 781.938.4752
[W] www.ssci.com