

# BARNEY F. GORIN, PE

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**Cofounder & Vice President, GoVentures, Inc. | Inventor & Systems Engineer, SSOLAS**

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Mr. Gorin is the inventor of and lead systems engineer for SSOLAS—the Seismic Subsurface Object Location and Analysis System—a groundbreaking detection platform being developed by GoVentures, Inc. SSOLAS applies seismic sensing principles to the detection and characterization of buried objects, including unexploded ordnance (UXO) and landmines, in environments where conventional electromagnetic approaches are often unreliable or ineffective. Designed for automated data collection and adaptable to complex subsurface geology, SSOLAS represents a significant advance in standoff detection technology with dual-use potential spanning military explosive ordnance disposal (EOD), humanitarian demining operations, infrastructure inspection, and buried utilities detection. Mr. Gorin’s years of systems engineering expertise across spacecraft propulsion and electromechanical design directly inform SSOLAS’ technical architecture and development strategy.

## Professional Overview

Barney F. Gorin is a licensed Professional Engineer with many years of post-baccalaureate experience in spacecraft systems engineering, spacecraft liquid propulsion design and development, robotics, and construction. He has filled leadership roles in the conception, design, development, integration, test, and deployment of space systems and electromechanical equipment.

## Areas of Expertise

- Spacecraft Systems Engineering: requirements development, flowdown, allocation & tracking; system-of-systems decomposition
- Liquid Propulsion Systems: design, development, integration, test, and flight operations
- Serviceable Spacecraft Engineering: orbital replaceable unit interfaces, fluid transfer design & analysis
- Program Management: resource estimating, allocation, and management across complex multi-disciplinary programs
- Strategic Planning and Public Policy: position paper development and formal Congressional testimony
- Technical Communications: authored publications, short courses, and formal technical reports

## Career Highlights

At GoVentures, Mr. Gorin supports a broad range of federal government programs, including the MiTeX Bipropellant Propulsion System and Robotic Servicing of Geosynchronous Satellites payload developed by the Naval Research Laboratory.

During his tenure at Orbital Sciences/Fairchild, Mr. Gorin directed systems engineering and propulsion work on programs including LEASECRAFT, the Orbital Spacecraft Consumables Resupply System (OSCRS), the Resupply Interface Mechanism (RIM), and the Satellite Servicer System Flight Demonstration. He led conceptual design of the Space Station Furnace Facility and was the lead propulsion engineer on RADARSAT and TOPEX.

At Hamilton Standard, Mr. Gorin was responsible for propulsion research, design, analysis, manufacture, integration, and test. He directed monopropellant rocket engine design, evaluated alternative propellants, and had Fracture Control Coordinator responsibility for the Defense Satellite Communication System (DSCS) III high-performance propellant tanks.

Earlier in his career, Mr. Gorin served as a Wind Tunnel Project Engineer at Cornell Aeronautical Laboratory's 8×8 ft test section, transonic, variable-density wind tunnel, managing complex test programs with sophisticated model configurations and serving as the single technical point of contact for program customers.

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When the aerospace industry crashed in the early 1970s, Mr. Gorin worked in underground utility construction, gaining valuable practical experience that has served him well throughout his career.

## Selected Programs & Contributions

- MiTEx Bipropellant Propulsion System (NRL) — propulsion system engineering and manufacturing lead, transient pressure analysis, valve qualification
- Space Based Laser Fluid Transfer — fluid systems engineering
- OSCRS / Resupply Interface Mechanism — berthing, fluid & electrical interface mechanism design
- LEASECRAFT Propulsion Module — propulsion subsystem engineering and analysis
- Cosmic Background Explorer (COBE) & DSCS III — spacecraft propulsion subsystems at Hamilton Standard
- Medical Waste Sterilization System — systems engineering lead for closed-loop microprocessor-controlled medical waste maceration and sterilization system

## Education & Credentials

- M.S., Aerospace Engineering — University of Notre Dame
- M.B.A., Business Administration — Canisius University
- B.S., Aeronautical Engineering — Tri-State College / Trine University
- Licensed Professional Engineer — State of Maryland
- Commercial Pilot with Instrument Rating
- Continuing Education: Lean Six Sigma (MIT OCW, 2013), LabVIEW (National Instruments, 2006), DOORS (IBM, 2010), Satellite Tool Kit (AGI, 1999)

## Patents, Honors, & Professional Affiliations

- Patents: Redundant Testable Valve Apparatus; Air Filter Sensor Kit; Space Station Utility Conduit
- DARPA Certificate of Recognition (2006); NASA Group Achievement Award; AIAA Technical Committee Service Award; ASME service award; Elmer Sperry Board certificate of appreciation
- Served two extended terms on AIAA Liquid Propulsion Technical Committee
- Testified before the United States Congress as systems engineer for the ASME National AeroSpace Plane Task Force
- Fairchild Paper of the Year (1989); Fairchild Space President's Award (1987)

## Selected Publications

Mr. Gorin has authored more than a dozen conference papers and publications, including many presented at the AIAA/ASME/SAE/ASEE Joint Propulsion Conference. Titles include work on the MiTEx Upper Stage Propulsion System, OSCRS on-orbit operations, spacecraft serviceable interfaces, and the use of superheated water for medical waste sterilization. He also authored “Spacecraft Propulsion, A Systems Engineering View” (AIAA Continuing Education, 1994), a text integrating systems engineering principles, orbital mechanics, and rocket propulsion to support his independent short-course instruction on the subject.

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SSOLAS — Seismic Subsurface Object Location and Analysis System | *pronounced “solace”* | [goventures.biz](http://goventures.biz)