Industry Awareness • Business Experience • Technical Expertise

The mission of Holder Aerospace is to supply our aerospace industry clients with complete business solutions that address their strategic, operational, and technical needs.

Holder Aerospace
Capabilities Overview

Founded in 2004, Holder Aerospace is a small business that provides strategy consulting for a broad range of clients in the aerospace industry.

With 50+ years of combined experience in all facets of aerospace business, Holder Aerospace can leverage far-reaching professional networks for effective strategic decisions.

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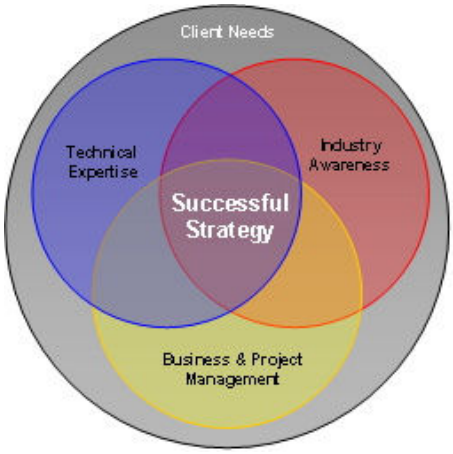
1. Company Overview

Founded in 2004, Holder Aerospace (HA) is a small business that provides strategy consulting for a broad range of clients in the aerospace industry. With over 50 years of combined experience in all facets of aerospace business, Holder Aerospace can leverage far-reaching professional networks for effective strategic decision making.

Holder Aerospace has business experts who speak engineering: we can improve your business success, without compromising technology excellence or innovation. Holder Aerospace has engineering experts who speak business: we develop and manage innovative technological solutions that work within the economic realities of the emerging global space industry.

1.1. Company Philosophy

The mission of Holder Aerospace is to supply our aerospace industry clients with complete business solutions that address their strategic, operational, and technical needs.



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At Holder Aerospace, we believe that business success lies at the intersection of three critical components:

- Industry Awareness – Knowledge of customers, competitors, and suppliers is critical to getting business and keeping it. We bring unique contacts and experience leveraging them.
- Technical Expertise – The right skills for any job must be available in order to get anywhere. Our team brings deep and broad hands-on experience in many technical disciplines.
- Management – Even with the best plans and expertise, a project's success depends on effective execution. HA can provide insightful, disciplined management of business and project operations.

These factors need to be analyzed within the context of the diverse needs of the organization. HA specializes in looking at the entire business to understand our clients' objectives, and then finding solutions through the application of these three areas of knowledge.

1.2. Holder Aerospace Partners

Livingston Holder

Experience:
30+ years
Organizations:
USAF
Boeing
Andrews Space
AirLaunch
Education:
BS Astro.Eng. USAF Acad.
MS Sys.Mgmt. USC

Mr. Holder is a leading executive with 30 years experience in aerospace systems management, engineering, planning, and operations. He has held many senior positions and is well known in the aerospace industry to commercial companies, NASA, NRO, DARPA, USAF and various arms of the Department of Defense and National Security Space community.

Early after he graduated from the United States Air Force Academy, Mr. Holder was recognized and decorated for his depth of knowledge and decision-making excellence in his role as a Titan III Launch Officer at Vandenberg Air Force Base. Mr. Holder accepted many challenging and classified assignments, including his selection as a Manned Spaceflight Engineer, which earned him an assignment to fly as a payload specialist on the Space Shuttle prior to the Challenger accident.

Mr. Holder left the Air Force in 1988 to pursue a career with Boeing. While there, Mr. Holder excelled in many increasingly senior roles including: management of the Space Station international integration activities; leadership of the Habitation Module IPT; Program Manager of Sea Launch; and Chief Engineer and Program Manager of Aviation Information Services (precursor to Connexion by Boeing), a system that provides wideband satellite communication for Air Force One and other vital US mobile platforms.

In 2002, Mr. Holder joined Andrews Space as Vice President Space Systems, where he was responsible for the company's space system design, development, and new business activities. He led the company to its first DoD contracts on the FALCON program, a joint DARPA/USAF effort.

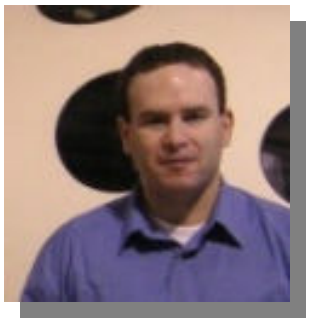
In 2004 Mr. Holder co-founded Holder Aerospace where he has served a range of clients supporting various civil, NASA and DoD aerospace needs. His support has ranged from strategic and technical advice, to proposal preparation support to project management.

In 2006, Holder Aerospace suspended operations to support AirLaunch LLC where Mr. Holder served as Chief Program Executive, where he managed all AirLaunch programs. Under his

leadership AirLaunch achieved several unique and significant technical milestones including the largest and heaviest object ever dropped from a C-17 and the largest and longest Vapor Pressurized rocket engine firings.

Mr. Holder holds a B.S. in Astronautical Engineering from the United States Air Force Academy, and an M.S. in Systems Management from University of Southern California.

Curtis Gifford



Experience:
16 years
Organizations:
AbTech Corporation
Booz Allen Hamilton
Andrews Space
AirLaunch
Education:
BS Astro/Physics Univ of VA
MS Sys.Eng. Univ of VA
MBA Darden School of B.

Mr. Gifford has 16 years experience in corporate strategic consulting and management, financial and business analysis, project management, and business process and tool development.

Mr. Gifford began his career working for an artificial intelligence software engineering and consulting firm (AbTech Corporation), gaining deep analytical capabilities working on many data mining projects, as well as significant experience managing product development programs for NASA and the Air Force. Also during this time, he worked extensively with commercial customers interested in increasing their marketing ROI through the use of MarketMiner, an enterprise data mining software tool. By the end of his tenure, Mr. Gifford had been promoted to Director of Research and Development, managing the company's strategic product development efforts.

After leaving to get his M.B.A., Mr. Gifford spent time working as a consultant with Booz Allen Hamilton, a leading strategic management consulting firm, and McKesson Corporation, a Fortune 20 medical supply chain company. In these positions, Mr. Gifford applied analytical rigor to help his clients maximize profitability through a number of cost reduction and market expanding initiatives.

Mr. Gifford then accepted a position as Principal Business Strategist with Andrews Space, Inc., managing the corporate strategy development process and leading all financial analyses, including market forecasting, cost estimation, and commercial business case development for advanced space vehicle design projects.

More recently, Mr. Gifford served as COO and CFO of AirLaunch LLC, an aerospace development company that built and executed over 50 firings of the largest VAPAK rocket engine in history. Mr. Gifford

holds a B.A. in Astronomy-Physics from the University of Virginia, an M.S. in Systems Engineering from the University of Virginia, and an M.B.A. from the Darden Graduate School of Business Administration.

Ralph Ewig, PhD

Experience:
15 years
Organizations:
Univ. of Washington
Andrews Space
AirLaunch

Education:
BS Aero/Astro Univ of WA
MS Aero/Astro Univ of WA
PhD Aero/Astro Univ of WA

Dr. Ewig has over a decade of experience across all areas of space systems design, analysis, development, and testing. His expertise combines highly detailed knowledge in specialized areas with a broad understanding of all aspects of space system development, as well as relevant project management experience.

In 2000 he joined Andrews Space, where he was the Project Manager for the NASA Future Space Transportation Study (FSTS), and Principal Investigator for the Mini-MagOrion (nuclear pulsed propulsion) experiment program in partnership with Sandia National Laboratories. He developed advanced RLV performance analysis tools, worked with the FAA/AST RLV Safety Working Group, provided system engineering support, and managed successful proposal developments for contracts of up to $15 million.

In 2005, he joined Holder Aerospace, providing consulting services on space systems and launch vehicle development and testing, and was made a partner in 2006. From early 2006 until the end of 2008 he served as the lead engineer for the analysis and testing of the VaPak propulsion systems and performance analyst of the QuickReach launch vehicle for AirLaunch LLC under the USAF/DARPA Falcon program.

Born and raised in West-Germany, Dr. Ewig immigrated to the US at the age of 20 to further his education. He holds three degrees from the University of Washington, with emphasis on space system design, plasma physics, and system optimization. During his studies he contributed to the Princeton National Spherical Torus Experiment (NSTX) and Helicity Injected Tokamak, and was lead engineer of the UW Nanosat program.

2. Services

2.1. Strategic Business Development

At Holder Aerospace, we understand how crucial it is to focus scarce business development resources. Our personnel have experience managing corporate strategy definition, new business development, and opportunity prioritization. We can help you:

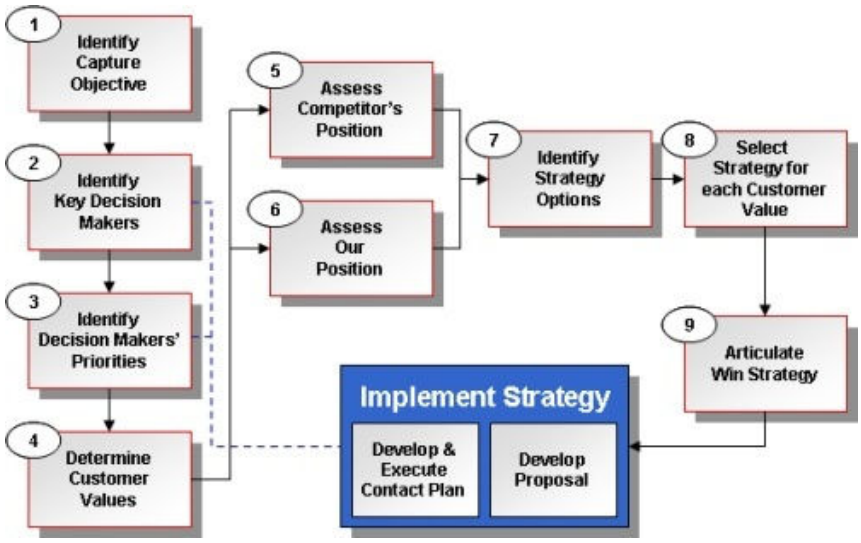
- Develop your corporate strategy based on your mission, capabilities and business environment
- Define and target critical customer segments
- Write or update your business plan
- Map out a plan for government and industry contact network development
- Identify and prioritize specific opportunities using customized business metrics

With 50+ years of combined experience in all facets of aerospace business, Holder Aerospace can leverage far-reaching professional networks for effective strategic decisions.

2.2. Proposal Development

For specific high-value opportunities, Holder Aerospace can assist you in developing a winning proposal. We will help you develop and execute a detailed capture strategy that maximizes win probability:

- Construct and execute a contact plan to obtain crucial pre-proposal intelligence
- Determine key decision-makers and their priorities
- Develop overall customer priorities, moving beyond what the solicitation says to what the powerful decision-makers are really looking for
- Review competitive landscape to determine optimal positioning and identify discriminators which show the customer “why you and not someone else”
- Select teammates/vendors to strengthen any perceived weaknesses
- Outline specific themes and messages to deliver in the proposal and as part of the contact plan.



"I had the good fortune to work directly with Holder Aerospace on a launch system proposal while I was a director at Northrop Grumman. HA was a key part of the technical team, and I am happy to provide them with my strongest personal recommendation."

Dennis Poulos, NGC

With a targeted strategy in place, Holder Aerospace can also assist you with the implementation and execution of your proposal:

- Manage execution of the proposal development effort, including schedule development, subcontractor management, storyboarding, independent technical reviews, and cost proposal development.
- Define the program management and systems engineering approach for the effort; both are key discriminators in government contracting
- Optimize the program flow (top-level organization, plan and schedule)
- Quantitative cost risk analysis for pricing decisions
- Identify commercial practices which can reduce bid price
- Recommend customer assistance; helping the customer helps you
- Support negotiations with the customer and subcontractors

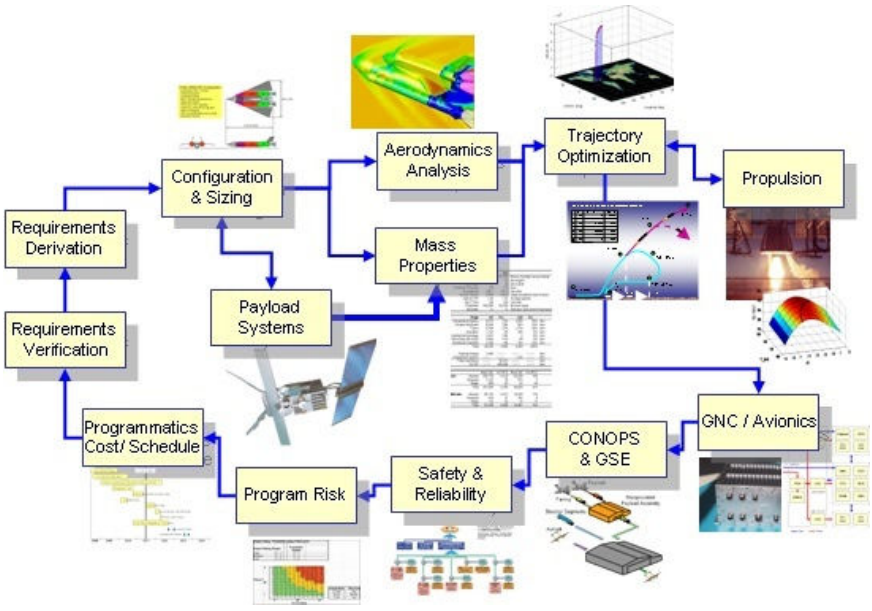
2.3. Engineering Services

Holder Aerospace has extensive experience in working on aerospace design and development programs. From specialty analysis to full-scale test program definition and execution, we can leverage our capabilities to help your business support its contracts in many areas:

- Project Management
- Systems Engineering
- Market and Financial Analysis
- Engineering Software (development / integration)
- Launch Vehicle & Spacecraft Development
- Subsystem Development
- Engineering Testing
- Physical Sciences
- Concept Visualization
- Training & Seminars

"I hired Holder Aerospace to provide some training and technical support to us on OTIS trajectory simulation software and set up some input file templates for us to use in future work. I was very happy with the training provided and the advice in working through specific issues."

Gary Lai, Blue Origin



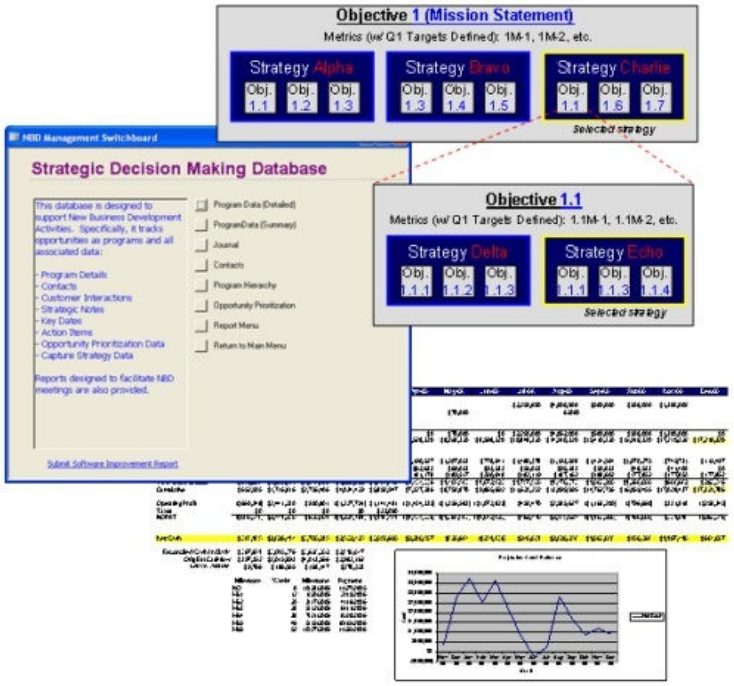
2.4. Business Management Processes

Holder Aerospace has experience with small companies, many of whom don't have the resources to bring in full-time professional management or expensive enterprise resource planning information technology. Finding the right balance between informality and repeatable, cost-reducing processes is critical as a company grows. We can develop, implement, and train your people in flexible methodologies and low-cost tools based on financial metrics to help manage your business in-house going forward:

- Strategy development/review methodology
- Corporate financial management, control, and budgeting
- Custom new business development process & opportunity database
- Proposal development process
- Company-wide resource management analysis
- Organizational structure, labor category definition, and rate calculation
- Various analytic tools (customized spreadsheets and databases) for managing different aspects of your business.

"Holder Aerospace became an indispensable part of the company's development of a man-rated booster, working with us and Scaled Composites in both a drop-test program and an engine development & test effort."

David Gump, t/Space

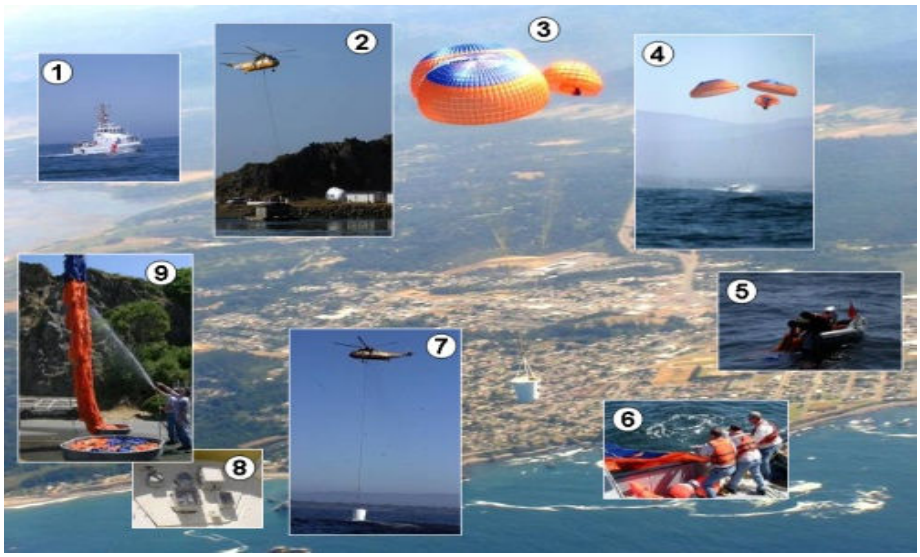


3. Success Stories

3.1. Crew eXchange Vehicle (CXV) Testing

In 2005 Transformational Space (t/SPace) Corporation tasked Holder Aerospace with the planning, execution, and analysis of a full scale drop test of their Crew eXchange Vehicle (CXV). Holder Aerospace had already been supporting t/Space with extensive engineering analysis on the vehicle.

A parachute drop test was conducted on 8th August 2005 in Crescent City, California to evaluate the CXV descent and recovery system and gather data for design refinement. The test vehicle included a representative mass, center of gravity location, and shape of the full-scale design. Attached to the vehicle were three 86 ft diameter ringsail canopies, which provide for the deceleration and terminal descent of the CXV. In this test, the vehicle was suspended from a heavy-lift helicopter, and released at an altitude of approximately 9500 ft. A chase helicopter was used for video capture, while real-time telemetry was acquired at a receiving station setup on a fishing trawler.



Leveraging Holder Aerospace's experience in large aerospace test program management, coupled with innovative technological approaches to low-cost data acquisition and test-article construction, allowed t/Space to achieve this hardware testing milestone very early in the vehicle development program. The flight date was achieved without slipping, and the budget met constraints with reserve remaining.

3.2. QuickReach Launch Vehicle Development

From 2005 until the end of 2008 Holder Aerospace personnel supported AirLaunch LLC in the execution of the DARPA/USAF funded Falcon Small Launch Vehicle Program. Holder Aerospace partners made key contributions to the program in management, financial, and technical areas, serving in the positions of Chief Program Executive, Chief Operations Officer, and Senior Engineer.

The program included an envelope expansion test program of the C-17 cargo aircraft, demonstrating the ability to air launch the 72,000 lb QuickReach SLV from an unmodified aircraft. Test flights were conducted out of Edwards Air Force Base in California.

In addition, the team executed an extensive propulsion development & testing program of the AirLaunch VaPak propulsion system. The second stage engine of the QuickReach rocket was test-fired over 50 times, and a full duration burn of the integrated second stage was also successfully completed.

In the process of program execution, the team set several new world records, including the heaviest object ever dropped from a military cargo airplane, and the longest duration test firing of a VaPak pressurized liquid rocket engine.

3.3. Dream Chaser Proposal Development

In 2009, Holder Aerospace performed market and financial analysis of the Dream Chaser system for Sierra Nevada Corporation. The Dream Chaser is a planned crewed suborbital and orbital spacecraft being developed by SpaceDev, a wholly-owned subsidiary of Sierra Nevada Corporation. The Dream Chaser design is planned to carry six to eight people to and from low earth orbit.

The Dream Chaser design concept was initially announced to the public on September 20, 2004 as a candidate for NASA's Vision for Space Exploration and later Commercial Orbital Transportation Services Program (COTS). SpaceDev was acquired by Sierra Nevada Corporation in December 2008.

Holder Aerospace investigated the commercial viability of the system, and the results of this analysis were used in support of the SNC proposal to NASA for the Commercial Crew Development (CCDEV) program. On February 1, 2010, Sierra Nevada Corporation was awarded $20 million in seed money under NASA’s Commercial Crew Development (CCDev) program for further development of the DreamChaser design. Of the $50 million awarded by the CCDev program, Dream Chaser's award represented the largest share of the funds. The official press release by SNC is available here.