CONNECTING WITH COMMERCIAL SPACE

The Role of Commercial Space in Strengthening National Security Capabilities

This is an unprecedented time for space. Technological advancement, lower-cost access to space, and massive private investment are all driving a wave of commercial space innovation. The U.S. government is eager to rapidly harness these next-generation commercial solutions to outpace evolving missions and threats, while improving the nation's security and prosperity. Commercial capabilities will be critical to addressing challenges like space traffic management and space domain awareness and, as demonstrated in ongoing Ukraine conflict, are already playing a critical role supporting U.S. national security.

The Aerospace Corporation (Aerospace) is working with our government customers to achieve these goals by identifying, connecting, and aligning commercial solutions with current and emerging national needs. In this "super-connector" role, Aerospace is creating greater collaboration between public and private sectors, while driving speed into the acquisition process and accelerating the development, advancement, and integration of space-based capabilities.

The Benefit of a Trusted Partner

As the operator of the only federally funded research and development center dedicated to the space enterprise, Aerospace is uniquely positioned to provide the technical leadership, trusted partnership, and objective guidance needed to help our nation's space leaders navigate the shifting landscape. With this ability to reach across the space enterprise, Aerospace can offer a set of unique capabilities for our customers:

- Accelerating the exploitation of commercial space opportunities while navigating associated risks
- Presenting informed tradeoffs among the best combinations of custom, hybrid, and commercial solutions
- Integrating commercial capabilities into enterprise architectures
- Deploying and sustaining capabilities to more quickly and affordably close operational gaps

Accelerating the application of U.S. commercial space capabilities for the benefit of government customers.

Quick Facts

› Identified and monitored more than 350 commercial service providers/ constellations

› Completed nearly 50 commercial company assessments and overviews

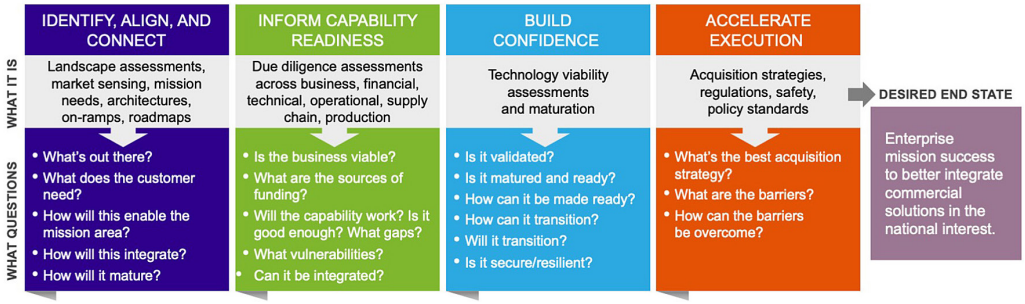
› Developed and demonstrated unique prototypes to validate new technological solutions – *Slingshot* (plug-and-play Handle interface) and *Moonlighter* (space systems cybersecurity)

› Increased internal investment to 6% of total revenue for new capabilities, agile prototypes, tools, and expertise, which enable the consideration, readiness, and integration of commercial solutions

For more information,
please email **CSF@aero.org**
or visit **aerospace.org/CSF**

The Four Pillars of Commercial Capability Development

Aerospace can advance and accelerate the application and integration of commercial space capabilities in the national interest to achieve enterprise mission success. To accomplish this, the Aerospace process is articulated across four pillars:



Identify, Align, and Connect

Identify existing commercial capabilities, how they align with the customers' needs, and how and where they may mature — 350 companies identified in past year

- Work with customers to understand missions, architectures, and desired outcomes
- Understand emerging options through landscape assessments, market sensing, and business intelligence

Inform Capability Readiness

Use depth and breadth of expertise to offer a broad range of capability readiness assessments — 50 assessments and overviews completed in past year

- Evaluate capabilities across business, financial, technical, operational, supply chain, and production
- Deliver threat insight, systems engineering analysis, and technical analysis

Build Confidence

Build confidence for the government to successfully use commercial capabilities with verification and validation

- Develop prototypes (Slingshot/Moonlighter), provide access to facilities, laboratories, and subject matter experts
- Evaluate the integration of commercial solutions into national architectures with digital engineering

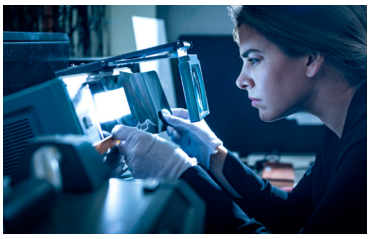
Accelerate Execution

Accelerate the execution, adoption, and integration of commercial space through the reduction of barriers

- Integrate commercial solutions for U.S. government missions through understanding and enabling of acquisition strategies, regulations, and standards
- Drive space policy and regulatory thought leadership — 12 papers published by Aerospace's Center for Space Policy and Strategy (CSPS)

Identify, align, and connect
commercial solutions to national needs

Inform capability readiness
through due diligence assessments



Build confidence
through capability maturation, testbeds, and proving grounds

Accelerate execution
by informing space regulations and standards

The Aerospace Corporation

The Aerospace Corporation is a national nonprofit corporation that operates a federally funded research and development center and has more than 4,500 employees. With major locations in El Segundo, California; Albuquerque, New Mexico; Colorado Springs, Colorado; and the Washington, D.C., region, Aerospace addresses complex problems across the space enterprise and other areas of national and international significance through agility, innovation, and objective technical leadership. For more information, visit www.aerospace.org.

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