AEROSPACE

# ADVANCING U.S. LEADERSHIP THROUGH APPLIED STRATEGIC FORESIGHT

Participants in the global space economy want to ensure success and build resiliency against critical uncertainties of the future by making proactive decisions in the near term. However, it can be difficult to characterize futures using traditional forecasting methods for predicting economic conditions and technology development, which do not provide holistic consideration of the critical uncertainties that could affect possible futures or highlight pathways for radical transformation.

To help customers future-proof their strategies and operations and drive innovation to bigger outcomes, The Aerospace Corporation (Aerospace), a nonprofit systems engineering and integration (SE&I) partner and leading architect for U.S. government space programs, maintains a unique Strategic Foresight capability within its Center for Space Policy and Strategy. This highly specialized team is dedicated to guiding decisionmakers through systematic approaches in thinking about and shaping aspirational futures starting today.

## End-to-End Strategic Foresight Today for Tomorrow's Critical Missions

Strategic foresight is not intended to predict the future, but rather to ensure we have adequately challenged our assumptions and are prepared for a variety of possible outcomes in the face of uncertainty. It is a disciplined approach to managing uncertainty, imagining possible futures, and informing better decisionmaking as a result.

From left: Aerospace's Strategic Foresight Team includes Jen Stein, founder Kara Cunzeman, Michelle Herman, David Geye, and Paul Frakes.

Aerospace's Strategic Foresight Team conducts futures-oriented projects to transform and orient the future mindset for U.S. national security, the civil and commercial space enterprise, the policy community, and the nuclear security enterprise.

**Strategic Foresight Team**
Contact futures@aero.org

**Learn more about Aerospace's Strategic Foresight Team**

**Space Agenda 2025**

Prior to the 2024 presidential election, Aerospace's Strategic Foresight Team leveraged insights from recent cross-enterprise futures studies to offer a framework for the next administration and policymakers to identify, discuss, formulate ideas, and debate strategy on the most critical topics for the nation to address to chart a future for U.S. leadership in space. From this exercise, Aerospace created a series of policy papers, called **Space Agenda 2025**, to inform incoming U.S. policymakers and space sector leaders about critical issues in three key areas: strengthening leadership and competitiveness, catalyzing commercial space, and charting future value.

Customers seek out the Strategic Foresight Team's expertise for:

- Vision and strategy development
- Ideation and disruptive innovation
- Strategic architecting
- Capability and technology roadmapping
- Education and training

Common deliverables for Aerospace's strategic foresight customers include tailored workshops, classes, and exercises; formal futures studies; customized immersive experiences; embedded strategy development and integration support; and persistent horizon scanning. Through activities such as these, the Strategic Foresight Team has helped lead significant, national-scale futures initiatives and influenced a range of national and programmatic investments, strategy, and policy outcomes.

Operating the only federally funded research and development center (FFRDC) dedicated to the entire space enterprise, Aerospace is chartered to operate in the national interest and does not compete with industry, providing unique value and objective, independent insights when delivering foresight services.

## Methodologies and Expertise

Considering only economic or technological factors and using them to make predictions about a single future omits the effects of other types of uncertainties, such as political, societal, or environmental, and increases the likelihood that unanticipated changes will derail strategy. Conversely, many of the tools, methods, and frameworks that strategic foresight harnesses can benefit the nation by creating innovative and resilient strategies for its future.

Aerospace's strategic foresight approach leverages the breadth and depth of Aerospace's technical expertise and lessons learned supporting the U.S. space enterprise, combining:

- A dedicated core of objective, full-time strategic foresight experts with space, policy, and national security experience and technical depth
- A matrix of similarly skilled adjunct technical experts able to help significantly expand foresight bandwidth, pursuits, effects, and impacts

## VUCA and Horizon Scanning

The world we live in today is increasingly characterized as "VUCA"—volatile, uncertain, complex, and ambiguous—and threats to resiliency and stable operations can come from anywhere at any time. The most impactful disruptions to the space enterprise may in fact come from outside the space sector. High-quality foresight requires the consideration of a full range of possible disruptions. Aerospace emphasizes horizon scanning—a critical component of quality strategic foresight—and can provide this capability to customers on a continuous basis.

### U.S. National Grand Strategy

Aerospace led an independently funded, nonpartisan pathfinder study—**Project North Star**—which concluded that with sufficient time, effort, support for varying viewpoints, and well-designed facilitation, the use of foresighting methodologies presents a viable novel approach to developing U.S. National Grand Strategy. More than 50 futurists, strategists, and thought leaders contributed to the study through a series of collaborative sessions guided by structured foresighting tools.

### Cislunar Ecosystem Foresighting

To inform the development of a national cislunar strategy and roadmap, Aerospace's Strategic Foresight Team partnered with Purdue University, Virginia Tech, and Johns Hopkins APL to lead workshops with U.S. government and commercial stakeholders to foresight a future cislunar ecosystem circa 2040.

### Policy Foresight Lab Series

Through its Foresight Lab Series, Aerospace guides policymakers, industry leaders, and academic experts through thought exercises addressing potential futures for cross-cutting topics, including general artificial intelligence, biotechnology, and geopolitical scenarios.

## The Aerospace Corporation

The Aerospace Corporation is a leading architect for the nation's space programs, advancing capabilities that outpace threats to the country's national security while nurturing innovative technologies to further a new era of space commercialization and exploration. Aerospace's national workforce of more than 4,600 employees provides objective technical expertise and thought leadership to solve the hardest problems in space and assure mission success for space systems and space vehicles. For more information, visit www.aerospace.org.

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