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THE MILITARY RELEVANCE OF COMMERCIAL SPACE

Abstract

As commercial space firms continue to expand in number, revenue, and vision, they are reshaping space capabilities globally. Moreover, these commercially produced capabilities are becoming increasingly critical to national defense: From heavy launchers to small satellites and data analytics to super-smart GPS applications, commercial space capabilities can augment and disrupt military and intelligence space routines. This rising economic and technological impact of commercial space requires policy and military decision-makers to maintain an informed understanding of commercial space.

To assist that understanding, this paper will provide a crosscutting overview of current and emerging commercial space capabilities. In doing so, this paper will yield insight into the role of commercial space in the industry and ways that role can be leveraged by military organizations, including a realistic assessment of the likely future availability of different capabilities.

Bryce Space and Technology, which specializes in non-advocate, rigorous analysis of the space industry, will deliver this overview based on the company's analysis of hundreds of commercial space ventures. This paper will address core questions of viability, commercial dynamics, and capability, assessing factors such as markets, investment levels and sources, technology, pricing, and risks. Key questions include:

- Do commercial systems duplicate, supplement, or compete with government capabilities?
- Which of the 12,000 proposed satellites will actually launch over the next decade? How can we tell which ventures are sincere?
- Can government users rely on commercial resources to be there when they need them?

To answer these questions, Bryce Space and Technology will use extensive surveys, unique data sets, in-depth public information, and independent analysis. This proven methodology has driven Bryce Space and Technology's previous studies on the commercial space industry, such as *The State of the Satellite Industry Report*, *The Annual Compendium of Commercial Space Transportation*, and *Start-up Space*.

The results of the paper will include information on the viability, dynamics, and capability of the commercial space sector, including the underlying factors that influence them. It will have graphics on long-term trends and summary tables of revenues and investment, as well as comparisons of satellite constellations and launch vehicles. The outcome of these results will be a cumulative overview of the influence of commercial space on military stakeholders, serving as a guide for military decision-makers to consider as they maneuver and develop alongside the dynamic and growing commercial space industry.