

## **COMMERCIALIZATION OF LOW EARTH ORBIT: DEVELOPING A MICROSATELLITE CONSTELLATION**

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### **Abstract**

The launch of Sputnik changed the world, and the ensuing “space race” produced many remarkable accomplishments, advancing launch vehicles, spacecraft, knowledge of space habitat, and exploration. Where space was largely in the hands of a few for many decades, space is now becoming increasingly accessible. With many countries developing national space programs, improved access through secondary launch opportunities, commercialization of components, and some standardization (Cubesats) are influencing how we think about space, and what is possible. This paper will talk about the transition likely to take place with observational systems in low earth orbit as commercial opportunities evolve. Technical, programmatic and financial challenges remain as impediments to developing a commercial LEO constellation aimed at weather prediction, whose low cost and enhanced data return would likely lead to direct-to-user weather information.