NSRC-2020 Keynote Abstract

Flying Researchers and Educators Will Revolutionize Commercial Suborbital Spaceflight Capabilities

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The advent of commercial suborbital spaceflight will offer numerous, powerful, new capabilities for research and education. As a result, many important research and education applications will result, most notably from the lower costs and more routine access offered by the much higher flight rates of commercial suborbital operators than were ever feasible in the past. Perhaps most importantly, however, the ability for researchers and educators to fly aboard these vehicles themselves will begin a fundamental transformation in how research and education are done in space. That transformation will advance space experimentation and education activities from their 20th century beginnings, as something done at high cost and risk through automation (and other proxies for in person participation), to a 21st century enterprise more akin to terrestrial research and education activities. In this presentation, I will describe this expected transformation and its expected, pervasive impact in more detail.