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Paper Title:	Commercial Capabilities to Improve Mission Success
Abstract:	<p>Two key trends are shaping the current government space environment. Intense budget pressure is limiting investment, and space is becoming an increasingly contested environment that our warfighters depend on for mission success. There is a strong need for affordable solutions that offer flexibility in acquisition and operations and increase overall resilience of the architecture. Against this backdrop, new and sophisticated commercial capabilities are being developed for communications and earth imaging missions. In the area of communications, the current generation of High Throughput Satellites (HTS) and various hosted payloads are being developed for commercial use and can provide augmentation opportunities. In remote sensing, new entrepreneurial ventures are redefining the parameters of earth imaging systems.</p> <p>This paper presents several models of commercial acquisition of systems for both communications and earth remote sensing missions. These examples are taken from successful and emerging programs that offset existing government requirements and offer flexibility in acquisition approaches. We review the current generation of commercial HTS communications and earth imaging satellites in the context of military requirements.</p> <p>We use case examples to illustrate creative acquisition approaches that can give the government increased flexibility in delivering space capabilities. We identify four acquisition models for increasing the government's flexibility in acquiring satellite capabilities: (1) traditional government procurement using commercial-like practices; (2) government-commercial hybrid acquisition with hosted payloads; (3) interoperable commercial model (fully compatible commercial capabilities available for lease); and (4) fully commercial service that satisfies government needs. Each of these models is illustrated with examples in the current satellite market for communications and remote sensing. The goal is to illustrate the range of options the government can exploit to achieve cost effective solutions and add critical capabilities in the current budget-constrained environment.</p>