

31st IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
Space economy – Stimulating measureable economic activities through space policies and budgets (3)

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GOVERNMENT ENGAGEMENT WITH NEW COMMERCIAL REMOTE SENSING COMPANIES:
EVALUATING MODELS FOR PUBLIC DATA BUYS

Abstract

Recent years have seen a wave of exciting new developments in the commercial remote sensing sector. Companies have emerged that are able to provide new types of data, including high temporal resolution imagery, hyperspectral data, and GPS radio occultation data. Government officials are interested in leveraging these new developments to help achieve government agency missions in areas such as environmental research, weather forecasting, and disaster relief. Commercial systems are typically less expensive than government-built systems, due to the lack of bureaucratic red tape. This, along with the potential to share fixed costs with other purchasers, is expected to result in lower data costs. In the United States, NGA, NASA, and NOAA all have programs underway to purchase and evaluate the potential of commercial satellite data for their own missions.

However, government engagement with these commercial entities also poses risks. Many in the research community, as well as providers of public services and value-added companies, rely on the free and open provision of government data to inform research and develop applications. When agencies purchase data from commercial entities, it is generally not feasible to share that data openly, as this would undermine the ability of the company to sell the data to other users.

To ensure that these engagements are successful, it is crucial to carefully design the data purchase agreement to maximize data sharing without undermining commercial efforts. This paper identifies and examines the variety of licensing arrangements possible, looking at variations in the type of data shared, the groups with whom it can be shared, and the conditions for redistribution. I examine existing and past models for government purchases of satellite data, including NASA's SeaWiFs and Science Data Purchase programs, NGA's purchase of data from Digital Globe and others, and European arrangements for data access from Airbus Defense and Space. Based on the analysis, the paper provides recommendations to government officials on data purchase arrangement designs that allow governments to engage the commercial sector while still maximizing the benefits to society.