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## Author: Mr. Milton Smith Sherman & Howard, LLC, United States

Mr. Stephen Smith Sherman & Howard, LLC, United States

## LEGAL ISSUES PRESENTED BY HOSTED PAYLOADS

## Abstract

Although there are various types of hosted payload missions, the typical hosted payload involves using excess capacity on a commercial satellite to accommodate additional instruments or sensors. Very often, the hosted payload has been a Government payload. The opportunity to have a small payload hosted on a large commercial satellite has enabled the U.S. Government, and other entities, to operate additional payloads in a timely and cost-effective manner and to address their needs based on shorter planning cycles. The commercial satellite operator also is able to leverage its satellite bus, launch vehicle and satellite operations in a cost-effective manner. Because of the success of past hosted payload missions and the increasing constraints on space budgets, satellite operators, manufacturers and governments have created branches to identify and address the opportunities presented by hosted payloads. With these opportunities, however, comes additional risk. Commercial satellite operators, insurers and other parties to these ventures need to evaluate the risks and the rewards from a business perspective and craft legal instruments to identify and allocate the risks.

Risks to the primary operator include manufacturing and other delays prior to launch, and the potential of harmful interference to the payload or satellite bus in-orbit. Several interesting legal issues are presented. For example, if there is a decrease in available on-orbit power, which payload will be cut-back or turned off? Could such a scenario lead to a "partial loss" under an insurance contract. Similar issues may exist for the owner of the hosted payload

Contractual parties involved in a typical hosted payload arrangement will include the Host (usually a commercial satellite owner/operator), the Client (the entity seeking to have its payload included or "hosted" on the satellite), the Manufacturers (of the primary payload and the hosted payload), the Launch Services Provider, and the Insurer(s). Terms and conditions between and among these Parties need to address compensation, cost sharing, control, and insurance-related matters. This paper will evaluate these and other legal issues presented by hosted payloads.